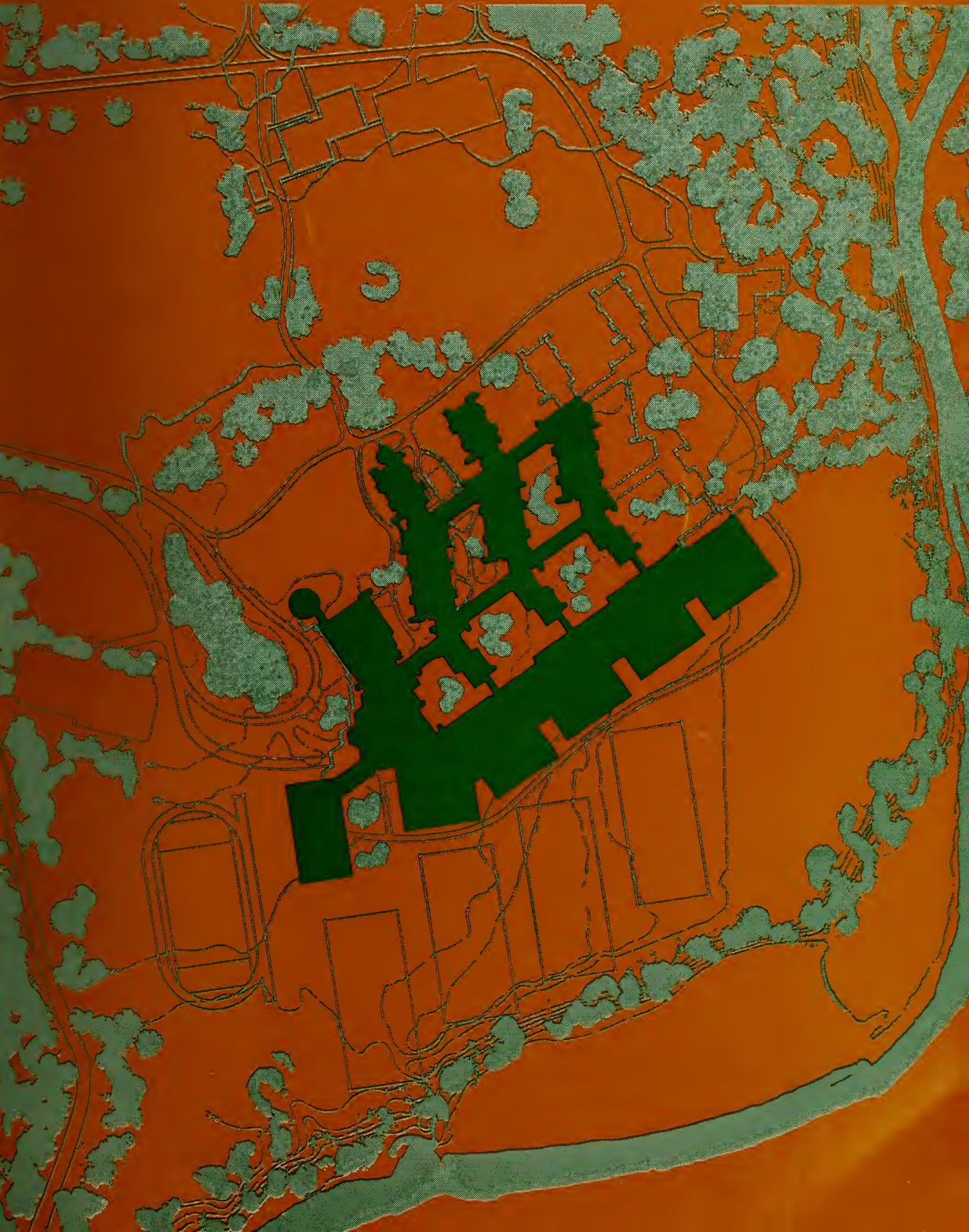


---

**University of Toronto  
Faculty of Arts and Science  
Erindale Campus**

**New 1970-1971 Programme**

---





Digitized by the Internet Archive  
in 2015

<https://archive.org/details/erindalecollege1970>

**Erindale College    University of Toronto    1970-1971**



## Academic Calendar 1970–1971

August 17–21	Monday– Friday	Supplemental examinations.
September 7	Monday	Labour Day.
September 14–18	Monday– Friday	Registration at Erindale College.
September 20	Sunday	The late registration penalty will be enforced after this date.
September 21	Monday	Lectures and laboratory classes begin.
September 28	Monday	Meeting of the Council.
October 12	Monday	Thanksgiving Day.
October 13	Tuesday	Meeting of College Councils.
October 15	Thursday	Last day by which changes of course must be made.
November 2	Monday	Meeting of the Council.
November 16	Monday	Meeting of College Councils.
November 20	Friday	<i>Last day to confirm student programmes.</i>
November 20	Friday	Last date to withdraw from a first-term course without academic penalty.
November 20	Friday	Fall Convocation.
November 30	Monday	Meeting of the Council.
December 14	Monday	Meeting of College Councils.
December 18	Friday	Last day of classes. First Term.
December 25	Friday	Christmas Day.
January 1	Friday	New Year's Day.
January 4	Monday	Second term begins.
January 4	Monday	Meeting of the Council.
January 11	Monday	Meeting of College Councils.
January 20	Wednesday	The second instalment of fees due.
February 1	Monday	<i>No second term course may be begun after this date.</i>
February 1	Monday	Meeting of the Council.
February 14–20	Monday	Reading week – lectures and laboratory classes will not be held.
February 15	Monday	<i>Last day for withdrawal without academic penalty.</i>
February 15	Monday	Meeting of College Councils.
March 1	Monday	Meeting of the Council.
March 15	Monday	Meeting of College Councils.
March 29	Monday	Meeting of the Council.
April 9	Friday	Good Friday.
April 10	Saturday	No lecture or laboratory classes after this date. All term assignments must be completed by this date.
April 12	Monday	Meeting of College Councils.
April 19 to May 7	Monday Friday	Annual examinations.
May		Meeting of the Council at the call of the chairman.
May 17	Monday	Summer evening session begins.

## Administrative Staff

### **University of Toronto**

<i>President</i>	C. T. Bissell, M.A., PH.D., D.LITT., LL.D., F.R.S.C.
<i>Vice-President and Provost</i>	J. H. Sword, M.A.
<i>Vice-President and Registrar</i>	R. Ross, M.B.E., M.A.
<i>Principal University College</i>	D. V. LePan, B.A., M.A., D.LITT.
<i>Vice-Principal University College</i>	V. E. Graham, M.A., PH.D., D.LITT., F.R.S.C.
<i>Dean, Faculty of Arts &amp; Science</i>	A. D. Allen, B.SC., PH.D.
<i>Associate Dean</i>	A. C. H. Hallett, B.A., PH.D.
<i>Associate Dean</i>	G. A. B. Watson, M.A., S.T.D.
<i>Assistant Dean and Secretary</i>	W. D. Foulds, B.A.

### **Erindale College**

<i>Principal</i>	J. T. Wilson, O.B.E., PH.D., SC.D., LL.D., F.R.S., F.R.S.C.
<i>Dean</i>	E. A. Robinson, D.SC., PH.D.
<i>Associate Dean</i>	W. J. Huggett, M.A., PH.D.
<i>Associate Dean</i>	I. M. Spiegel, M.A., PH.D.
<i>Registrar</i>	J. J. Rae, M.A., PH.D.
<i>Assistant Registrar</i>	L. J. Elmer, B.A., S.T.D.
<i>Librarian</i>	H. L. Smith, B.A., B.L.S.
<i>Administrative Officer</i>	R. S. Rawlings, B.A.
<i>Superintendent—Physical Plant</i>	A. O. Miller
<i>Director of Physical Education and Recreation</i>	B. W. Bartlett, B.P.H.E.
<i>Health Service</i>	D. L. Robison, M.D. E. G. Davies, M.D. S. Markson, M.D. V. Degutis, REG.N.

## Erindale College Faculty

<i>Anthropology</i>	Professor A. Mohr, A.B., PH.D. Professor B. A. Sigmon, B.A., M.S., PH.D. Mrs. R. Vanderburgh, B.A., M.A.
<i>Astronomy</i>	Professor J. R. Percy, B.SC., M.SC., PH.D. Professor R. Racine, B.A., M.A., PH.D.
<i>Botany</i>	Professor J. R. Harle, M.SC., PH.D. Professor P. F. Maycock, B.A., M.SC., PH.D. Professor P. V. Rangnekar, B.SC., M.SC., PH.D. Professor G. R. Thaler, B.SC., M.SC.
<i>Chemistry</i>	Professor D. R. Clark, B.SC., PH.D. Mr. L. Johnston, B.SC., PH.D. Professor G. A. Ozin, B.SC., D.PHIL. Professor A. J. Poč, B.A., M.A., PH.D. Professor J. J. Rae, M.A., PH.D. Professor E. A. Robinson, D.SC., PH.D. Professor I. W. J. Still, B.SC., PH.D.
<i>Classics</i>	Professor R. L. Beck, B.A., M.A. Professor T. G. Elliott, B.A. Professor C. I. Reid, B.A., PH.D.
<i>Economics</i>	Professor G. B. A. France, M.A. Professor M. J. Hare, B.COMM., C.A. Mr. F. B. Mayer, B.COM. Professor G. F. McGuigan, B.A., M.A., PH.D.
<i>English</i>	Professor T. H. Adamowski, B.A., M.A., PH.D. Professor D. B. Hill, A.B., M.A., PH.D. Professor S. S. Hole, M.A., PH.D. Professor D. I. Lancashire, B.A., M.A., PH.D. Mr. M. Levene, B.A., M.A. Professor R. Rower, B.A., M.A., PH.D.
<i>French</i>	Mrs. G. Chesneau, L. ES L., C.A.P.E.S., D.E.S. Professor C. Cloutier-Wojciechowska, L. ÈS L., DIP. D'E. SUP., D. DE L'U Mr. P. R. Findlay, B.A., M.A. Mrs. M. Raine, B.A., M.A. Professor A. L. Stein, B.A., M.A., PH.D. Mr. D. A. Trott, M.A.

Professor H. H. Weinberg, B.A., M.A., PH.D.  
 Mr. J. Yashinsky, B.A., M.A.

*Geography*

Mr. A. R. Byrne, M.A.  
 Professor D. F. Putnam, B.S.A., PH.D.

*Geology*

Professor D. H. Watkinson, B.SC., M.SC., PH.D.

*German*

Mr. W. Meyer-Erlach, B.A.  
 Professor J. P. Payne, B.A., M.A.

*History*

Mr. M. Dafoe, B.A., M.A.  
 Professor D. P. Morton, B.A., M.A., PH.D.  
 Mr. J. H. MacLachlan, B.A.SC., ED.M.  
 Professor W. B. White, A.B., M.S., PH.D.

*Italian*

Miss P. Frohman, B.A., M.A.  
 Mr. L. T. McCormick, M.A.  
 Professor E. G. Neglia, B.A., M.A., PH.D.

*Mathematics*

Professor T. Bloom, B.SC., M.A., PH.D.  
 Professor P. H. H. Fantham, M.A., D.PHIL.  
 Professor J. E. LeBel, M.A., PH.D.  
 Professor M. Mather, B.A., PH.D.  
 Professor F. D. Tall, A.B., PH.D.  
 Professor S. M. Trott, B.SC., M.A., PH.D.

*Philosophy*

Professor J. V. Canfield, M.A., PH.D.  
 Professor C. E. Cassin, B.A., M.A., PH.D.  
 Professor W. J. Huggett, M.A., PH.D.  
 Professor A. Rosenthal, M.A., PH.D.  
 Professor M. Schiller, B.A., PH.D.

*Microbiology*

Professor A. Guha, M.SC., D.PHIL.

*Physics*

Professor P. P. M. Meincke, B.SC., M.A., PH.D.  
 Professor H. W. Taylor, B.SC., M.SC., PH.D., F.INST.P.  
 Professor D. C. Tozer, B.SC., PH.D.  
 Professor J. T. Wilson, O.B.E., PH.D., SC.D., LL.D., D.SC.,  
 F.R.S., F.R.S.C. (Physics)  
 Professor S. S. Wong, B.S., M.S., PH.D.

<i>Political Science</i>	Professor J. Barros, A.B., M.I.A., PH.D. Mr. D. H. Gardner, B.A., M.A. Professor A. A. Kontos, M.A., PH.D. Professor B. Kovrig, M.A., PH.D. Mr. A. McDougall, B.A., M.A.
<i>Psychology</i>	Professor T. M. Alloway, M.A., PH.D. Professor L. Krames, B.A., M.A., PH.D. Mr. D. M. Keller, B.A. Professor P. L. Pliner, B.S. Professor I. M. Spiegel, M.A., PH.D.
<i>Religious Studies</i>	Professor L. J. Elmer, B.A., S.T.D.
<i>Russian</i>	Mr. N. Shneidman, M.P.H.E., M.A.
<i>Sociology</i>	Mr. A. M. Bennett, M.A. Mrs. M. Cooper, B.A. Professor W. E. Kalbach, B.A., M.A., PH.D. Mr. A. T. R. Powell, M.A.
<i>Spanish</i>	Professor O Hegyi, M.A., PH.D. Professor E. G. Neglia, B.A., M.A., PH.D. Professor M. J. Scarth, B.A., M.A. Professor J. Webster, B.A., M.A., PH.D.
<i>Zoology</i>	Professor D. Gibo, B.A., PH.D. Professor G. K. Morris, B.S.A., M.A., PH.D. Professor R. C. Plowright, M.A., PH.D. Professor P. J. Pointing, B.SC., PH.D. Professor B. I. Roots, B.SC., PH.D. Professor W. G. Wellington, B.A., M.A., PH.D.



## The Principal's Message

For the past several years university students have been restless. They have demonstrated in Berlin and Prague, across Europe and the Americas and in Japan and China. Explanations for this turbulence have been as varied as the geographical settings. Students have complained about oppressive professors, racial discrimination, inadequate support, repressive governments, antiquated teaching and overcrowded buildings. They have protested against wars, against compulsory military service, against companies which manufacture armaments and against universities which engage in defence research. Outside observers have blamed foreign conspiracies, the use of drugs, permissive societies, affluent economies and undisciplined upbringing. Doubtless all of these have played a part in certain instances, but these complaints are so varied, in some cases so contradictory, and often of such long standing, that one is tempted to search for deeper common causes to explain such widespread and recent turmoil.

Only two factors appear to be universal. One is that many of the worst disturbances have occurred at large universities in big cities. It does seem that, when many people are crowded into little space, with inadequate recreation and with impersonal treatment, they become unhappy and turbulent. The other possibility is rarely admitted. It is that universities have not changed fast enough to keep pace with the times and that they are in some respects old-fashioned. Thus they do not satisfy today's students and they may not fully meet their legitimate needs and aspirations.

Fortunately the University of Toronto has done much to ameliorate both of these liabilities. By preserving its traditional college system, and by opening new campuses it has reduced overcrowding and sought to maintain friendly and close relations between students and their professors. At the same time President Bissell, Dean Allen and Professor Macpherson have led the faculty in completely revising the curriculum in the arts and science; students have achieved a wide freedom of choice in selecting their courses; the university has introduced new methods of instruction and is revising its constitution.

Erindale was founded during this period of transition and disruption. We see that the world has changed and we are aware that this situation invites innovation in the universities and that our opportunity to undertake it is great. We appreciate the tranquility which our large campus provides, the ease of communication possible in a small community of faculty and students and the advantages which membership in a great university confers. These strengths offer a secure base upon which to build and experiment.

Some things have been done already. More remains to do, but one immediate change has been that henceforth students at Erindale will have a share in establishing college policy. They take a responsible part in college councils and committees, witnessing how the college arrives at decisions and participating in the process.

The faculty and students are constantly meeting to seek better ways to learn, new combinations of instruction, fresh fields for research and above all how a university and its people can best contribute quality and vitality to the life of their times.

## General Information

Erindale College, the newest college of the University of Toronto, opened in September 1967. In this our fourth year of operation we are offering the complete three years of the New Programme leading to the B.A. and B.Sc. degrees.

The admission requirements are those of the University of Toronto as described in the Undergraduate Admission Handbook 1970-71 which is obtainable at secondary schools or from the Director of Admissions, University of Toronto. The Calendar of the Faculty of Arts and Science called "The New Programme - 1970-71" gives a full account of the general regulations governing the college. The academic standards and the rules governing requirements for standing are the same on all campuses of the University of Toronto.

In this booklet "Erindale College - The New Programme" the courses offered at Erindale College in 1970-71 are described and brief statements about the content of the various subjects taught is given.

Full-time day students wishing information about the college should address: The Registrar, Erindale College, University of Toronto. Telephone: 828-5231 or 828-5331.

Part-time students wishing information about evening courses given at the college by the Division of University Extension should write or telephone: Division of University Extension, 84 Queen's Park, Toronto 5. Telephone: 928-2393.

The college is governed by the Erindale College Council which consists of faculty, administration and students.

### **Student Facilities**

Erindale College has a large Undergraduate Library of 80,000 volumes. This is supplemented by the facilities of the St. George campus library from which books and periodicals may be borrowed by Erindale College students.

A free bus service is provided for students between the college and the Islington-Bloor subway station; the Clarkson GO station and the St. George campus.

A Doctor is in attendance and a Registered Nurse is on duty at the college at all times.

### **Housing**

Residence needs of Erindale students are looked after by the Erindale College Housing Association. The Association provides: 1) five, on-campus, residential homes with a total accommodation for approximately forty students; 2) an up-to-date listing of families in the area who offer students accommodation in their homes. For information call: 828-5331.

### **S.A.G.E.**

The Student Administrative Government of Erindale is the undergraduate association which is responsible for student activities at Erindale. Managed entirely by the students, S.A.G.E. is the group that organizes a variety of activities which are designed to provide our students with an enriching environment. S.A.G.E. has been involved in

academic programmes as well as providing a well-rounded social life at the college. While the executive is elected the previous spring, all students are invited to participate in S.A.G.E. activities either by running for an elected position on the Council or by becoming involved in some of their working committees.

### **Physical Education**

Do not compare the Physical Education Programme at Erindale College to any you have experienced previously. This programme is keeping pace and actually jogging ahead of the needs and interests of Erindale's community.

Ours is a co-educational programme offering opportunities for instruction, competition and informal recreation in team and individual physical activities.

Student involvement and decision-making is fulfilled in E.C.A.R.A. This Erindale College Athletic and Recreation Association guides intramural competition and co-ed club activities.

Expansive outdoor facilities and growing indoor facilities allow this programme to be as varied and broad as participants at Erindale are willing to make it.

Students at Erindale are not required to take a course in Physical Education nor are they required to have a Medical Examination unless they are taking part in organized team sports.

### **Location**

Erindale College is situated in the town of Mississauga on Mississauga Road, about ½ mile north of #5 Highway. It may also be reached by going south about 4 miles on Mississauga Road from the Macdonald-Cartier Freeway (#401) at Exit #41.



## **Admission Requirements 1970–71**

The Undergraduate Admission Handbook 1970–71 and the Calendar of the Faculty of Arts and Science 1970–71 contain the detailed admission requirements of the Arts and Science Faculty of the University of Toronto. The following is a summary of these regulations.

The following Ontario Grade 13 subjects (or their equivalent) are approved subjects for purposes of admission to this Faculty:

### **One-Credit**

Biology; Chemistry; Physics; Geography; History; Accountancy Practice; Home Economics; Music; Art. A candidate may present for credit only one of: Accountancy Practice, Art, Home Economics, Music.

### **Two-Credit**

English; French; German; Greek; Hebrew; Italian; Latin; Russian; Spanish; Mathematics A (alone); Mathematics B (alone).

### **Three-Credit**

Mathematics A and B (two subjects). If both subjects are presented, Mathematics B is given only one credit.

### *Ontario Grade 13 Requirements*

Two of English, another language, Mathematics (either A or B); and optional subjects for a total of seven credits. Applicants are urged to consult the calendar of the College before selecting their Grade 13 subjects as many courses in the languages, mathematics and sciences require Grade 13 prerequisites.

Since accommodation and certain other facilities are restricted, the University cannot guarantee the acceptance of all qualified applicants.

Applicants for admission should therefore regard the holding of the published admission requirements as meaning only that they are eligible for selection to the University.

Under the University's admission practices, the school record of the applicant, the confidential report of the school and available standardized tests are considered. The length of time in secondary school, and the number of sittings at Grade 13 examinations needed to obtain entrance requirements are also taken into account.

The University of Toronto operates on an academic year system. Admissible candidates proceeding in the regular manner as full time students may begin a degree programme only in September.

Application forms should be carefully completed according to the instruction sheet attached to the form, and submitted to the Office of Admissions, Simcoe Hall.

### **Candidates currently in Ontario Grade 13:**

Application forms are obtained from the high school. University of Toronto calendars are sent to Ontario Secondary Schools, Ontario Public Libraries, and Canadian Universities.



*Other candidates* should first write to the Office of Admissions specifying the course in which they are interested and giving full details regarding their academic standing. If an applicant appears to qualify for consideration he will be given an application form and further instructions.

It is strongly recommended that Ontario Grade 13 candidates have Grade 12 standing in at least *six* subjects (excluding Physical Education).

*Students in attendance at Ontario secondary schools* should present the results of the aptitude and applicable achievement tests offered by the Service for Admission to College and University or through the Ontario Department of Education.

### *Mature Students*

Students twenty-five years of age or over, residents of Ontario for at least one year, who have a sound academic record and at least 66% in at least one Grade 13 subject or its academic equivalent, will be considered for admission to the Faculty of Arts and Science as mature students.

### *Summary of Terminal Dates*

Applications for admission to undergraduate degree courses should be submitted as early as possible in the year for which the applicant seeks admission, and not later than the dates below.

- 1 April 1970 Last day for applications for June admission.
- 1 June 1970 Last day for application for regular full-time courses.
- 11 June 1970 Students who have applied before 1 April 1970 will be told whether they are admitted or not.
- 26 June 1970 Students must accept or refuse offers of admission by this date.

### *Dates for Registration 1970-71*

#### FIRST YEAR

- Monday, September 14 A-E (incl.) 9-12 and 2-4.30 p.m.
- Tuesday, September 15 F-Q (incl.) 9-12 and 2-4.30 p.m.
- Wednesday, September 16 R-Z (incl.) 9-12 and 2-4.30 p.m.

#### SECOND AND THIRD YEARS

- Thursday, September 17 A-Z (incl.) 9-12 and 2-4.30 p.m.
- Friday, September 18 A-Z (incl.) 9-12 and 2-4.30 p.m.
- Monday, September 21 First Day of Classes.

## Schedule of Fees

This is a condensation of the section on Fees from the Arts and Science Calendar which sets out a complete fees schedule. Fees are subject to change by the Board of Governors.

### **Bachelor of Arts and Bachelor of Science**

The academic fee included the following fees: tuition, library and laboratory, examination, degree, physical education. Incidental fees include such things as Hart House (men), students' societies, athletics, health services, etc.

The first instalment of fees is due on or before registration. The second instalment is due the opening date of the second term and must be paid before January 20th. A fine for lateness of three dollars a month will be imposed.

There is a supplemental examination fee of \$10 for one subject and \$5 for each additional subject for students in day classes.

FEES			INSTALMENTS	
<i>Academic</i>	<i>Incidental</i>	<i>Total</i>	<i>First Term</i>	<i>Second Term</i>
Men     \$470	\$50	\$520	\$285	\$238
Women \$470	\$44	\$514	\$279	\$238

Each student enrolled in the Faculty of Arts and Science (Erindale College) must pay annual fees to the Office of the Comptroller, Fees Department, according to the above schedule. (Please indicate Faculty or College and student number on the back of the cheque.) Make cheques payable to the University of Toronto.

## Scholarships Awards and Bursaries

Erindale students, as members of the University of Toronto, are eligible for admission scholarships and bursaries awarded by the University, the Provincial Government, and other interested bodies. In addition, a number of awards has been established exclusively for Erindale students. Full details are contained in the Admission Awards Calendar, available at secondary schools or from the Office of Student Awards, Simcoe Hall, University of Toronto. A limited number of awards are reserved for non-Ontario students. Applications for all admission scholarships should be sent directly to the Office of Student Awards, and *not* to Erindale College.

### **ADMISSION SCHOLARSHIPS:**

*Ontario Scholarship Programme:* The Province of Ontario awards an Ontario Scholarship, worth \$150, to all students who achieve an average of 80 per cent or better in papers worth seven credits, as required for the Ontario Secondary School Honour Graduation Diploma. No application is necessary.

### **Admission Awards open to Erindale students:**

The following entrance awards are reserved for Erindale students, but applications should be made to the Office of Student Awards, Simcoe Hall, University of Toronto.

*Erindale-Cooksville Lions' Club Centennial Scholarships:* awarded to students entering First Year from the geographical area served by the Club. Two awards – value \$150 each.

*Oakville University Women's Club Award:* awarded to a female graduate of an Oakville Secondary School who is a full-time student at Erindale College. Value: \$200.

*Varsity Fund Scholarship:* four annual awards, renewable if first class standing is maintained. Value: \$350 for the first year and \$500 for each of the two subsequent years.

*Special Erindale Entrance Scholarships:* Value \$150.

### **SPECIAL ERINDALE COLLEGE AWARDS:**

A number of in-course (Second and Third Year) awards and bursaries is awarded by the Erindale College Scholarships and Awards Committee. Applications for these awards should be made through the Office of the Registrar, Erindale College.

*Port Credit University Women's Club Award:* available to a mature woman student who has returned to education after an interruption in her educational programme. Value: \$300.

*Port Credit University Women's Club Book Prize:* awarded to the woman student enrolled in the First Year who obtains the highest standing in the final examinations of that year. Value \$50.

*Chreston-Macedonian Bursaries:* awarded on the basis of academic standing and financial need. Maximum value \$250.

*Progressive Conservative Women's Association (Peel South) Award:* awarded to a

full-time student entering Third Year who is specializing in Political Science. Value \$200.

*Mrs. Lois Spigel Book Prize*: awarded to a student specializing in the Social Sciences. Value \$50.

*Special Erindale College Awards*: awarded according to the financial need of the individual student.

#### **OTHER FINANCIAL ASSISTANCE:**

##### **Ontario Student Awards Programme**

All students who are residents of Ontario and who satisfy the admission requirements of a Canadian university or an eligible post-secondary institution in Ontario may apply for an award under this Programme. To receive an award, a student must establish a need for assistance and enrol in an eligible institution. An award under this Programme will be made to the extent of established need in a combination of a non-repayable grant and a Canada Student Loan. Apply: On application forms available at the University of Toronto, Office of Student Awards, or Erindale College.



## Courses Subjects and Programmes

In this calendar the word *subject* refers to an academic discipline such as English, Chemistry, or Psychology; the word *course* refers to a particular set of lectures or laboratories in a subject such as Chemistry 235E or History 100; the word *programme* refers either to the collection of courses a student is taking in a particular year, e.g. second year programme, or to the complete group of courses he is taking or intends to take – e.g. the Specialist History Programme.

Students are referred to the Arts and Science Calendar 1970–71 for further details regarding the rules and regulations of the Faculty of Arts and Science. If a student has any questions about the content and scope of certain subjects, or courses, he should consult a professor in the subject or the College Registrar.

In 1970–71 the New Programme will be in operation in all years in the Faculty of Arts and Science of the University of Toronto.

No attempt is made in the New Programme to distinguish between Generalist (General) or Specialist (Honours) programmes – the degree eventually awarded will depend upon the subjects and courses that make up each individual student's programme. Thus a student on entry to the University no longer has to make an irreversible decision to be in Arts or Science or to follow a three or four year programme of study. These decisions can now be made at various points of a student's progress through the University in terms of new and developing interests and levels of achievement. It should, however, be noted that the flexibility and choice now available do not prevent a student with definite aims and developed interests from following them from the start. It is to be hoped that even students with well defined aims will take the opportunities offered by the New Programme to explore unfamiliar fields of knowledge.

In the *first year* students are free to choose any "100" series courses provided that pre-requisites, if any, are satisfied. "200" and "300" series courses, unless they have the symbol (I) under the number, are *not* available to first year. It is inadvisable for students in first year to take more than one such course. If a student anticipates the possibility of *Specialization* in a particular field in his higher years he should select at least one course in this subject in his first year. Particularly in selecting a first year programme students are strongly advised to consult an academic counsellor for advice.

In higher years, students may wish to choose programmes which will allow them to specialize in a particular discipline; they may combine two areas (e.g. Sociology and Psychology) or they may choose a set of courses which will allow them to be generalists in a particular field; e.g. science, humanities or social sciences. Students are urged to consult the professors asking them which courses would best fit their aims and which related courses they should take.

Two innovations in the courses at Erindale this year are:

**1** The institution of a UNIVERSITY 100 (UNI 100) which is a comprehensive course entitled MYTHS and MODELS and is the equivalent of three first year credits. A description of this course is given on page 31.

## 2 Interdisciplinary Courses

- |          |                                   |           |   |                                  |
|----------|-----------------------------------|-----------|---|----------------------------------|
| <b>a</b> | Communications                    | CMM 100ES | — | Information Theory               |
| <b>b</b> | Joint Linguistics &<br>Philosophy | JLP 200EF | — | Semantics and Linguistic Theory  |
| <b>c</b> | Joint Psychology &<br>Zoology     | JPZ 100E  | — | Population Regulation Mechanisms |
| <b>d</b> | Drama                             | DRA 200E  | — | Drama Through Acting             |

Students interested in qualifying for entry to the Faculties of Medicine or Dentistry should consult with the secretaries of these Faculties regarding the required courses. At present it would seem that for Dentistry and Medicine, Chemistry 120E, Physics 110, Biology 100E are required in the first year. For Medicine two years of the New Programme are required and Chemistry 235EF and Statistics 232 should be taken in the second year.

Qualifications for teachers' Type A certificate, College of Education, in general, requires a four-year degree with the equivalent of eight courses in a major teaching subject. It is desirable that students get specific information from the Registrar of the College of Education.

Students desiring to specialize in a particular subject, e.g. Philosophy, or pair of subjects, e.g. Mathematics and Physics, should consult with a staff member of the Department(s) concerned. A brochure describing courses required for *Specialization* will be available in the early summer and will be mailed to students who have been admitted (I year) or have pre-registered (II and III years).

*Time-tables* will be ready well in advance of Registration and will be mailed to all students who have accepted offers of admission or registered by mail.

## Conditions for Academic Standing

### **I First Year Programme**

- a A student shall be said to have completed a First Year programme when he has obtained standing in *five* courses designated as being available to First Year students.
- b A student may not begin any courses not offered to First Year students until he has either:
  - i completed a First Year programme, or
  - ii has standing in four courses of a First Year programme with an overall average (in these four courses) of at least 60%.
- c A student who has a term mark of at least 60% in a failed 100-series course in a First Year programme will be permitted to write a supplemental examination. Failure in a supplemental examination will not count as a second failure, but will necessitate re-enrolment in the failed course or a substitute.

### **II Second Year Programme**

A student shall be said to have completed a Second Year programme when he has obtained standing in ten courses, at least three of which must be 200 or higher series courses.

### **III Third Year Programme and Requirements for Three-Year Degree**

A student shall be said to have completed a Third Year programme and shall be entitled to receive a bachelor's degree (Bachelor of Arts or Bachelor of Science) when he has

- a obtained standing in fifteen courses at least *eight* of which must be 200 or higher series courses.  
NOTE: There is no restriction as to the number of 100-series courses to be taken in any year.
- b a final mark of 60% or better in each of at least eight of the fifteen courses. Of these eight at least four must be 200 or higher series courses.
- c for a Bachelor of Science degree, included in the eight or more required 200 or higher series courses at least six courses offered by one or more of the following departments: Astronomy, Botany, Chemistry, Geography (to be specified), Geology, Mathematics, Physics, Psychology, Zoology.
- d notified his College Registrar no later than (a date to be announced) that he wishes to receive his degree.

N.B. The designation "Bachelor of Arts (Three-Year)" or "Bachelor of Science (Three-Year)" will appear on the student's academic record.

### **IV Entry into a Fourth Year Programme**

A student shall be permitted to enter a Fourth Year programme only if he has completed the requirements for a bachelor's degree as described in III above.

## **V Fourth Year Programme and Requirements for a Four-Year Degree**

- a** A student shall be said to have completed a Fourth Year programme and shall be entitled to have the designation “Bachelor of Arts (Four-Year)” or “Bachelor of Science (Four-Year)” entered on his record when he has
  - i** qualified for a 15-course degree
  - ii** completed an additional five courses, no more than one of which may be a 100-series course
  - iii** obtained a final mark of 60% or better in each of at least four of the five courses
  - iv** for a Bachelor of Science degree, included in the twelve or more required 200 or higher series courses at least nine courses offered by one or more of the following departments: Astronomy, Botany, Chemistry, Geography (to be specified), Geology, Mathematics, Physics, Psychology, Zoology.
- b** For the degree of Bachelor of Commerce a student must have
  - i** qualified for a 15-course degree
  - ii** obtained standing in a total of twenty-three courses as outlined in the calendar for the completion of the “Commerce and Finance Programme”.
  - iii** obtained a final mark of 60% or better in each of at least four of the six courses listed for the Fourth Year programme.

## **VI Refused further registration in the Faculty**

A student will be refused further registration in the Faculty if:

- a** he fails four courses in his first ten attempts, or
- b** he fails five courses in his first fifteen attempts, or
- c** he fails six courses, or
- d** he fails to satisfy the requirements for a degree as specified in III in his first twenty attempts.

NOTES: **1** A student is liable to be refused registration in the Faculty for one year if he fails a minimum of two courses at the first attempts in any year.

**2** Failed supplemental examinations in first year do NOT count as second failures.

## **VII General Regulations**

- a** All students admitted to the eight Colleges of the Faculty will normally be expected to take a full programme of studies (five courses) in the winter day session of each year. With the approval of the College concerned and the Faculty exceptions may be made.
- b**
  - i** A student may withdraw from his programme (winter-day) without academic penalty up to *February 15th* each year.
  - ii** If exceptional circumstances warrant it a student may be permitted, on petition, to withdraw from not more than one course (or two half-courses) of his programme without academic penalty.



- iii A student may withdraw without academic penalty and without petition from an extra first term half-course before *November 20th* and from an extra full or second term half-course before *February 15th*.
- iv Credit will be retained for any half-course completed and discredit noted for any half-course failed before the date of withdrawal.
- c Students who wish to enrol in fewer than five courses at any one time may be admitted to the Division of Extension. Such a student will normally enrol in winter evening courses or summer day or evening courses, but may, with the permission of the Department concerned, also enrol in winter day courses.  
N.B. A maximum of three courses may be taken in a winter session.
- d Normally, credit towards a degree will not be given for an extra (sixth) course.

### VIII Standing in a Course (or Half-Course)

- a The following scale of marks will be used in all courses and half-courses in all years:

MARK	GRADE
> 80%	A
70-79%	B
60-69%	C
50-59%	D
below 50%	Fail

- b In the case of half-courses, standing must normally be obtained in each half-course attempted. Marks in two half-courses may not be averaged to produce standing in a whole course-equivalent, except where the Department(s) concerned specify that this will be permitted for particular and stated combinations of two half-courses.

### IX Term Marks and Examinations

The method of arriving at a final mark for each course (or half-course) will be decided by the Department offering the course, with the proviso that the method will be decided by a reasonable date. In those courses where final examinations are required these will be held in a final examination period arranged by the Faculty. Final examinations will normally be held in 100-series courses. Requests for exemption of courses from this regulation shall be brought before the Council. The final mark in the 100-series courses will normally be made up of a term mark and an examination mark with the restriction that not less than one-third nor more than two-thirds of the final mark will be based on term work.

Departments are, in general, responsible for the standards of marking used in the courses that they offer and for the communication of these standards among their members from year to year so as to ensure their equitable interpretation and application.

### X Aegrotat Consideration

If the ability of a student to complete a course is affected by illness or domestic

problems, a petition may be made through his College Registrar for consideration by the Faculty. If there are adequate grounds for the petition the Department concerned will determine the status of the work done by the student and the steps, if any, that he must take in order to complete the course.

**XI Transcripts**

Full copies of his transcript will be issued to any student at any time, subject to reasonable notice and a nominal copying fee. Each transcript will show:

- a Each course taken, with a number of course and brief descriptive title.
- b Standing in each course attempted, with marks and letter grades for each attempt, including any marks obtained in supplemental examinations.
- c The completion of a named programme if the department (s) concerned so recommend.
- d Overall standing for each year with marks and letter grades.
- e Degree obtained.

**The Annual Examinations**

The annual examinations are held in late April and early May.

**The August Examinations**

Candidates who are permitted to write supplemental or deferred examinations must submit a completed form of application to the Secretary, Faculty of Arts and Science, by July 10th. The supplemental examination fee is \$10.

**Subject Abbreviations**

ANT	Anthropology	HIS	History
APM	Applied Mathematics	ITA	Italian
AST	Astronomy	JBC	Joint Biology and Chemistry
BIO	Biology (Botany, Zoology, and Microbiology)	JLP	Joint Linguistics & Philosophy
CHM	Chemistry	JPZ	Joint Psychology & Zoology
CSC	Computer Science	LAT	Latin
CMM	Communications	MAT	Mathematics
DRA	Drama	PHL	Philosophy
ECO	Economics	PHY	Physics
ENG	English	POL	Political Science
EPS	Earth & Planetary Sciences (Geology and Physics)	PSY	Psychology
FRE	French	REL	Religious Studies
GER	German	SLA	Slavic Languages & Literature (Russian)
GGR	Geography	SOC	Sociology
GLL	Greek & Latin Literature	SPA	Spanish
GRH	Greek & Roman History	STA	Statistics
GRK	Greek	UNI	University (Combined Course)

## Subjects Taught at Erindale

In the following pages a group of short paragraphs describing the content and scope of the various subjects is given. It is hoped that these will aid the student in getting a better understanding of the particular subjects. This is especially the case for subjects not formally given at the secondary school level.

Requirements for specialization in various subjects will be sent to you at a later date but it is recommended that students who wish to specialize in a certain discipline consult a professor in the subject.

### **Anthropology**

Anthropology is the study of human biology and culture and their connections. *Physical Anthropology* focuses on the evolution of man and his nearest primate relatives, as revealed by fossil remains, and on the constitution, physiology and variation of living populations. *Cultural Anthropology* is the study of the way of life of peoples throughout the world, their economy, social organization, religion, language. Particular emphasis is given to non-western groups. Conclusions are drawn about interrelationships of cultural elements, man's relationship to the environment and processes of culture change. Physical evidence (habitations, tools, food remains) of groups no longer extant are investigated through *Archaeology* to reconstruct the cultures of the past and to trace their development from earliest times.

The Erindale Anthropology programme offers the student the general background necessary for the advanced training required for professional positions. It is the special concern of the faculty to introduce students to research methods of physical and cultural anthropology including archaeology and to involve them in the research programmes of the department. Students planning an anthropology concentration should consult *anthropology faculty* members for advice.

Anthropologists are employed as faculty in universities and colleges, as researchers in museums and by government. For additional information see *Anthropology as a Career* by Wm. C. Sturtevant, available at the Erindale College Library.

### **Astronomy**

Although the fascination of the skies is timeless, astronomy as a science has progressed very far in this last century. From a largely mathematical discipline, practiced by a race of inscrutables working in private observatories, it has developed into an integral part of our everyday life.

At Erindale College, two astronomy courses will be offered. Both are self-contained survey courses, employing a combination of lectures, discussion groups, laboratory exercises and evening observing sessions. The excellent facilities of the David Dunlap Observatory, the McLaughlin Planetarium, the St. George Campus Observatory and of Erindale College itself will be used.

### **Biology**

Biology is the science of living organisms – their kinds and relationships, origins and evolution, structure and development, their functions and mutual relationships in



the environments in which they occur. Biology relates to such major human problems as population, conservation and pollution. Studies of the interaction of plants, animals and environment show how famine and disease follow the unwise use of habitat and how pollution aggravates these problems. A study of Biology is a key to the solution of many of these world problems.

Botanists, microbiologists and zoologists at Erindale cooperate closely in organizing courses and programmes in *Biology* which stress the relationships of plants and animals in terms of form, function, environment and microstructure, from the ecosystem, whole plant or animal down to the molecular level. *Botany* is concerned with plants, their structure, functions and basic relationships to the environment. The food we eat, the air we breathe, the drugs that heal us, are all ultimately tied to the relation of plants to the natural environment. Plants are the basis of vast and complicated food chains in the oceans, lakes and rivers as well as in terrestrial ecosystems. Plants may be studied from many points of view. One approach is to subdivide the subject on the basis of the different classes of plants, another approach is to deal with physiology, genetics, ecology, taxonomy, plant geography and systematics. *Zoology* is the science concerned with the study of the structure, the functioning and the interrelationships of animals. The general field of zoology is divided into a large number of special areas of study and research. One way to subdivide zoology is according to the classification of animals; another way is to divide it by methods of study such as: cell biology, radiation biology, physiology, genetics, ethology (animal behaviour), and population biology. *Microbiology* is the study of minute living forms that can be seen as individuals only with the microscope and is concerned with small *plant* forms (algae, molds, yeasts and bacteria), single-celled *animals* (protozoa) and viruses. Its separation from Botany and Zoology is therefore somewhat arbitrary.

The courses offered at Erindale in Biology are of three levels – introductory (100 series), intermediate (200 series plus BIO 320E and 321E), and specialized (300 series except BIO 320E and 321E). Staff will assist students in organizing an appropriate group of courses according to their interests or a specialized programme in biology.

Careers in biology are in research, in teaching at all levels, and in government and industry. Professional careers in biology require specialization at the undergraduate level, and usually an advanced degree. Students should bear this in mind when planning programmes. Students who intend to become high-school biology teachers are urged to arrange programmes to meet the requirements of the High School Assistant's Certificate, Type A, Ontario Department of Education.

## Chemistry

Chemistry is both a challenging intellectual pursuit and a dominant force in shaping modern civilization. Modern chemistry provides an understanding of the structures and properties of atoms and molecules and uses this knowledge to interpret and predict the changes associated with chemical reactions. In addition to its vital role in



modern science-based industry, chemistry has an increasingly important bearing on other sciences such as biology, the medical sciences, psychology, geology, metallurgy and astrophysics. This is reflected in the courses offered in the recommended programme in Chemistry. The basic core of chemistry courses, with ancillary Mathematics and Physics, will enable the student to choose courses at the fourth year level reflecting his specific area of interest.

The Chemistry programme offered at Erindale College is a very suitable preparation for those intending to teach chemistry in High School (Type A certificate); continuation into graduate work or entry into industry. It also includes courses for those working in cognate disciplines such as biology and planetary and earth sciences.

### **Classical Studies**

Classical Studies are concerned with the languages, literature, philosophy and history of the Greeks and Romans. Courses in this subject provide a helpful introduction to a very wide range of studies from Indo-European linguistics to modern political theory. Whether the student approaches the Classics in the original languages or in translation, he will find an intelligent people of another society who tried to meet basic and universal issues. While courses provide training, for example, in philological or historical method, classical studies is central to a liberal education.

### **Earth and Planetary Sciences**

The earth is so vast and complex, that it is studied in many different ways. Geologists examine and describe the land surface. Geochemists consider the chemical processes which have formed it. Paleontologists reconstruct the life of the past. Geophysicists employ techniques borrowed from physics to explore its interior and hidden ocean floors.

Its relation to the moon, other planets and the rest of the universe have long excited interest, but until now meteorites have been the only samples of extra-terrestrial material available to us. A new era opened in 1969 when astronauts brought back the first specimens from the moon. Some of these have already been studied at Erindale College.

As a result of being able to combine new discoveries with older information scientists are now gaining a much clearer concept of the origin and nature of the earth and of the processes which have been operating to move continents about, raise up mountains and form ore deposits. These new discoveries involve so many different approaches to the study of the earth and its relations to the rest of the universe that the name Earth and Planetary Sciences is being used here to include them all and to embrace the latest methods with those already well established.

### **Economics**

The study of economics does not teach one to run a business, balance a family budget or make money on the stock market. More significantly it deals with the

functioning of the economic system. Every nation, whatever its political orientation (totalitarian, socialist or capitalist) and whether it is technologically advanced or not has to contend with these economic decisions.

In recent years economic research has been particularly concerned with the diagnosis of two inversely related phenomena; excessive unemployment and inflationary price increases. Stress has also been given to the underlying sources of economic growth in both the industrial nations and the low-income countries.

In Canada, the problems of differential rates of regional development, the degree and impact of foreign ownership in Canadian industry and an equitable distribution of the tax burden are contemporary economic issues of significance.

The course sequence in Economics at Erindale is designed to accommodate the interests of both specialists and generalists. The specialist is encouraged to take both calculus and statistics in his early years. The generalist has the opportunity of taking a minimum of economic theory (two courses) before he is permitted to enrol in courses which discuss economic policy.

There is a broad interchange and overlap between the study of Economics and many other disciplines in the social sciences. Therefore students can create sequences between Economics and Geography, History, Political Science, Sociology and Mathematics. Those who have specialized in Economics very often pursue graduate work in either Economics or Business. It also provides solid training in such fields as Law or for entry into industry, the government or teaching.

## **English**

The study of English attempts to engage the mind, imagination and sensibility of the student in the literature of the English-speaking world, and in related literatures, both classical and modern. The sequence of English literature, from its beginnings (about the seventh century) to the present, constitutes a continuous tradition that reflects the vitality of an entire civilization – its political, social, religious, scientific, and cultural life – and, in addition, presents a permanent record of the ways in which the human mind and imagination have responded to recurrent problems and situations. At the same time, each age gives rise to its own peculiar problems. The literature of the past and the literature of our own day can cast light upon the present and indeed upon the future. Literary studies can provide us with a fuller knowledge of ourselves and our world and with deeper insight into the nature of human experience.

More particularly, the undergraduate study of English in this University prepares the student for more advanced work in the discipline, appropriate standing in the English Language and Literature Programme qualifying the student, unconditionally, for graduate study in accredited universities of this country, of the United States and of the United Kingdom. In addition, it prepares its students for a Type A certificate programme for secondary-school teachers, particulars of which can be obtained from The College of Education, for work in journalism and in the publishing field, and for positions in business and in various departments of government.

## **French**

Erindale College offers a dynamic, contemporary French programme designed to anticipate the needs of Canadian students. Canada's current consciousness of its bicultural heritage and willingness to explore avenues leading to bilingualism have greatly influenced our pedagogical aims and methods.

For students wishing to pursue a programme of study built on previous language training and leading to a high level of competence in French, we offer courses designed to achieve this aim. Our methods are based on the use of the most modern laboratory equipment coupled with student-faculty participation in conversational practice. In second and third years courses embracing the study of French as a language system are offered through theoretical and applied linguistics.

The study of French Literature has traditionally been closely related to the development of language skills. In our programme the student who is competent in the language is offered a wide range of literature courses. In these the student will become aware of the various critical approaches; historical, textual, esthetic, and will acquire an appreciation and understanding of French thought, art and culture. The skills thus developed will also be used to study French-Canadian literature and culture.

For non-specialists, Erindale offers a series of courses in which works are read in the original French and then discussed in either English or French, according to the choice of a particular section. These courses are available to students taking other disciplines who wish to enlarge their familiarity with one of the world's great literatures.

There is great flexibility built into the programme, with few pre-requisites or co-requisites for most courses. In special cases pre-requisites will be waived if a student can satisfy the instructor that he is able to undertake the programme.

## **Geography**

Geography deals with the surface of the earth and with man's place on it. Throughout time, man's active curiosity about his environment has led him to explore the whole of the earth's surface and to locate and describe its various features and phenomena. Implicit in this curiosity is a desire to make use of the environment and to recognize and exploit its resources. Such knowledge, recognition, and use of environmental resources is basic to man's existence and governs the patterns of distribution of human populations and activities. Perhaps it is not too restrictive to say that the basic objective of Geography is to describe and explain the reciprocal relations of man and the environment, the results of which are given visible expression in the form and composition of the landscape.

Geography approaches its task in various ways. In common with the natural and social sciences it attempts to systematize or classify its data. It is interested in the nature of sequential changes in the landscape, but above all, it is interested in the spatial distributions, associations and interactions of terrestrial phenomena. It is recognized that many students may come to Erindale with little knowledge of



geography, while others will enter with a lively curiosity already sharpened and focused by an excellent high school experience.

Geography is offered at Erindale primarily as an interesting and important contribution to general education, and as a discipline worthy of study on its own merits. Geography may also be an approach to a worthwhile career.

Geography programmes are well established in Ontario Secondary Schools and there is a continuing demand for qualified teachers. Geographers also continue to find employment in many branches of Federal and Provincial Government service. Geographical training has proven useful in the fields of urban, regional and resource planning.

Students who may intend to specialize in Geography later are advised to elect at least two courses in Geography each semester. Members of the staff in Geography will be glad to advise students with respect to specialization in the discipline and about the courses which are most appropriate to their specific interests.

## **German**

Through the media of language and literature undergraduate courses in German offer the interested student access to an important part of Western Civilization.

Language study includes phonetics, oral expression, translation and essay writing. Advanced audio-visual aids maximize the variety of material and the ease of learning while still allowing for personal student-instructor contact. Great care is taken to involve the language student with important issues of a social, political, scientific and cultural nature. This ensures a total and meaningful immersion in German culture and life for both the serious German scholar as well as others who require a reading knowledge only.

Ranking with the finest achievements of the human mind are the works of authors like Lessing, Goethe, Schiller, Holderlin, Novalis, Grillparzer, Heine, Keller, Hesse, Mann and Brecht. They form an illustrious gathering linking the literature of the German speaking countries to world literature.

Seven courses with a minimum of four literature courses will qualify the serious student for specialist standing in German.

## **History**

A recent University of Toronto publication suggests that, *Every subject taught in a university has a social context. History, in particular, is relevant to the study of disciplines no matter how specialized. The study of History leads the student into the records of mankind. This past illuminates, although it may not directly guide, the conditions of the present. To have no interest in History is to have no interest in the present, no reasonable view of the future and no analysis of oneself.*

Both in response to a greater demand and a larger enrollment, Erindale College takes pleasure in announcing that its basic course in Western Civilizations will be supplemented by new offerings in Canadian, American and European history. This opportunity for concentrated work in specialized areas of interest will provide our



students with a more balanced programme, thereby giving them an opportunity to discover that History is not only a dialogue between past and present but, as has already been indicated, a tool for self understanding and further intellectual growth.

In addition, a history concentration can provide students with the requisite mental discipline and analytic skills for work in a variety of chosen fields, from teaching and the law to a career in the civil service and journalism.

### **Italian**

Italian is a worthy and even indispensable aid to studies of other literatures, especially French, Spanish and English. "Exciting" may seem a trite adjective, but one can certainly be swept along by the study of the Renaissance in Italy. A first-hand study of Machiavelli's own writings will also serve to rescue him from standard misinterpretations, and reading Michelangelo's literary works will complete one's view of his over-all genius. And so one could continue from the beginnings of Italian literature to the present creative surge.

One can also mention the inherent beauty of spoken Italian with its vastly varying dialects from the top to the bottom of the "boot".

A fuller comprehension of the literary, linguistic, cultural and historical facets of Italian civilization is the goal of our programme of studies.

Graduates in Italian are in demand and will continue to be. Knowledge of another language and culture is regarded favourably by other disciplines and is frequently required for graduate-level studies. There are career opportunities in teaching, foreign affairs, trade and law.

### **Mathematics**

There are many different motivations for the study of Mathematics. To the humanist, Mathematics is a part of the mainstream of human culture, and he is likely to regard his subject as an art. To the scientist or social scientist it affords analytical and descriptive devices which greatly illuminate theory. To the engineer and economist it is an important working tool. To the mathematician, it is an end in itself. Mathematics endeavours to provide courses to suit all of these viewpoints.

The professional mathematician is most likely to find employment in universities, in the civil service or in government laboratories, and in financially or technologically oriented business firms. Research positions require postgraduate study. Such fields as teaching, computing, applied statistics, and actuarial science offer opportunities for graduates. A training in Mathematics has traditionally been a strong preparation for careers in law and business; today it is also an excellent foundation for further work in a wide variety of fields in the science and social sciences.

The sequential nature of Mathematics means that pre-requisites are essential in most courses and that, as a rule, it is disastrous to fall behind in a course. In other words, good preparation and steady work are essential to successful completion of a mathematics course, and students without the one and/or unwilling to engage in the

other are advised to avoid the subject. Where pre-requisites are stated, they may be waived for students who can demonstrate adequate knowledge.

First year students with adequate preparation who want a substantial mathematics course either for its own sake or in conjunction with another field of study are advised to take MAT 135. All serious students should also take Mathematics 140E. The pre-requisite of XIII MAT B can be waived for very good students. The half courses, MAT 110EF and MAT 120ES are intended for students seeking less demanding courses. MAT 120ES affords an entry into Mathematics for the student who omitted or did poorly in XIII MAT A.

### **Philosophy**

Philosophical problems are distinguished by their continuing fascination for the human mind and by their perennial elusiveness. But when even moderate progress is made, the impact upon the world of learning is often enormous. Revolutions in thought that shake the foundations of the existing sciences have occurred and exciting new disciplines have emerged. In addition, perplexing difficulties have been uncovered in the underpinnings of the natural and social sciences as well as in the presuppositions of morality, freedom, responsibility, religion and conventionally accepted values.

The role of the philosopher is that of Socrates, the self-styled “gadfly”, who refuses to *play* your game but insists on examining it critically instead. He asks *why* you made that move, recommends alternative strategies, and may even question the value of the game itself. Socrates was the first philosopher-kibitzer and he was put to death.

We invite you to kibitz with us and acquire the tools and techniques necessary for the conceptual clarification and critical evaluation of the life and thought of the present and of past ages. Apart from the physical hazard mentioned above, a scrutiny of your own most cherished convictions and deeply-rooted beliefs may well blow your mind.

### **Physics**

Physics was born of a desire to understand nature in a quantitative way. Guided by experiment and intuition, physicists arrive at mathematical relations among various concepts and these are then tested and extended by further research. The courses in physics are designed to help students both to understand and use the concepts and relations which have been developed and also to appreciate the need for continual questioning of widely-accepted views. The liberal arts student should gain insight into the nature of scientific investigation, while the science student whose interest is in sciences other than physics should acquire a back-ground knowledge which should lead to a deeper understanding of his own discipline.

The present programme in Physics at Erindale College employs the most up-to-date demonstration apparatus and undergraduate laboratory facilities. It has been designed

to meet these diverse needs. Students wishing to specialize in physics should consult a physics professor.

### **Political Science**

The Political Science Programme at Erindale has two main goals. First, it aims to provide an introduction to the core aspects of the discipline – the nature of the political process, the structural-functional aspects of modern governmental systems, the essentials of political philosophy past and present, and modern analytical approaches to the study of politics.

Secondly, and in addition, the programme reflects a special emphasis on the field of international relations which is a distinctive feature of the Political Science curriculum at Erindale. This will allow for concentration on the many aspects of international politics such as the foreign policy process, international organizations, and international behaviour.

### **Psychology**

Psychology, the science of behaviour, deals with the manner in which organisms, including man, perceive and react to the world in which they live. Psychology addresses itself to the mechanisms and dynamics by which we acquire our responses and adapt to the environment – both the physical and the social. Since behaviour is complex and multi-determined, psychology must concern itself with physiological and genetic events as well as those which are entirely experimental. Psychology is thus a bio-social science, which – in a more or less evolutionary or adaptive framework – examines at many levels social interaction, developmental changes throughout the life of the organism, the structure and organization of the senses, modes of perceiving and responding, the environmental events which shape our behaviour, the origins and implications of our drives and motivations, conflicts, emotions, and the wide variety of individual differences which are occasioned by differences in genetic endowment, physiological function and past experience. Because of the demands of science for rigor and objectivity, much emphasis is given to the techniques by which behaviour is studied; including the liberal use of animal investigation where it becomes virtually impossible to examine man himself directly to obtain answers. Extensive examination of a wide variety of experiments with humans and animals is paramount in all courses in psychology and forms the basis of theoretical discussion and generalization.

### **Religious Studies**

Religious Studies, as an academic discipline, is based upon a recognition of the fundamental significance of religion for man and society. Its intent is to provide students with an opportunity to deepen their understanding of man and his institutions and to explore in various ways the ultimate questions and convictions which have affected the foundations of his life throughout history. Among the



perspectives and methods involved in the courses are those of History, Philosophy, Psychology, Anthropology, and Sociology.

Historically, man has expressed his profoundest convictions, questions, aspirations, and fears in many ways. His art, philosophy, conduct, social institutions, even his theories about the physical universe, have conveyed and illuminated his measure of himself and of the world in which he lives. From time to time these forms of expression coalesce within a particular pattern and tradition which we may identify as a “great” or a “world” religion, but along with such religions – both within them as well as outside them – are the individuals, each with his own personal convictions, values and interpretations of experience and of the symbols by which he represents to himself the ultimate concerns of life. The examination of all this constitutes the academic enterprise which we title Religious Studies.

### **Slavic Languages and Literatures (Russian)**

Slavic Languages and Literatures offers a range of courses in Russian language and literature. There are courses suitable for inclusion in a wide variety of programmes of study irrespective of whether the student has studied Russian in Grade XIII or not. Some students may specialize intensively in Russian language and literature. Others may simply wish to gain a working knowledge of Russian to aid their reading of important material in another field, as, for example, science or social science. Language study in the Department emphasizes skills in using literary materials, and it also employs oral methods, combining small instructional groups with some laboratory or conversational practice.

Students who have not studied Russian in secondary school should not consider themselves at a disadvantage when considering specialization in the Russian or Slavic field.

### **Sociology**

One of the essential questions sociologists have had to confront concerns the extent to which the individual is determined by society and to what extent he is a determinant of society. In examining such questions, sociologists use the methods of science as well as those of the humanistic disciplines. The answers are not self-evident and traditional explanations often prove unreliable, both as a source of understanding and as a guide to action. In these circumstances, sociology provides another approach for assessing existing knowledge and developing more valid theories of social behaviour and the nature of society.

Students who wish to pursue careers in other fields, may gain from the study of sociology a clearer understanding of the human and social condition as it relates to their chosen profession and to contemporary institutions in general. In Canada and abroad, the demand for professional sociologists is very great for teaching, research, administrative and consulting positions. A professional career in sociology, however, usually requires advanced training beyond the undergraduate level.



## Spanish

It is hoped that students who study Spanish will strive toward a twofold goal: the first, to learn to speak, understand, read and write the Spanish language with ease; the second, to become familiar with the civilization and intellectual life of the Hispanic world through serious study of the artistic and literary phenomena of that world. Latin America, with hundreds of millions of Spanish speakers, should be of vital interest and concern to English-speaking North Americans. It is inevitable that Canada's ties and contacts with this area will increase as the 20th century draws to a close. Thus opportunities for persons well-trained in the Hispanic field should likewise multiply.

The programme of Spanish studies at Erindale College is designed to allow the student to pursue either of two streams of specialization. One would permit him to take a maximum of language courses with a minimum of literature; the other would reverse the process giving an opportunity for concentration in literature and culture with fewer courses in language. After the first year all courses, both literary and linguistic, are conducted in Spanish as much as possible in order to give the student maximum exposure to the language.

## University 100

University 100 is a pilot project in educating first-year students at Erindale College. This new programme is the equivalent of *three* regular first year subjects. The enrollment will be limited to 100 students, with five instructors. The purpose of the programme, in the course of providing a general education is to give the student time to pursue his own interests and discover his talents. More specifically the students and staff will inquire into the common principles of thought and reasoning that underlie the traditional academic subjects. Emphasis will be placed on such skills as perceptive reading, the organizing and relating of data, and the drawing of correct inferences.

Under the general theme of *Myths and Models*, students and instructors will examine key works related to man's idea of himself and his civilization. The staff and students will examine such questions as, what are the personal and historical biases that control our conception of reality? How have changing interpretations of the nature of man and the world influenced actions and institutions? What views of human freedom are found in such authors as Plato, the Bible, Freud, and McLuhan? Within the general framework of the programme students will be expected to pursue independent work. The work will be conducted through small discussion groups and directed individual study. A wide variety of media will be employed, with a sparing use of formal lectures. Central to the concept underlying University 100 is the exercise of individual and group autonomy; many of the decisions about the conduct of the programme will be the responsibility of the students. Students and instructors will work together to develop a community of learning.

Two 2-hour seminars in groups of twenty and one session of the whole group of 100 students are planned for each week. The programme will give the student the

equivalent of 3 first-year credits and will prepare him to pursue specialized studies in most courses during his upper years. For further information, contact the registrar.

### Abbreviations

For subject abbreviations see Page 20.

E Course given only at Erindale

F Half course – Fall term only

L Lecture hours

P Practical or laboratory work hours

P.I. Permission of Instructor

S Half course – Spring term only

T Tutorial hours

Y Half course – i.e. indicates a half-course given throughout both terms

/ means *or*

& means *and*

(I) may be taken by first year students

### *Availability of Courses to Other Years*

“100” series courses are available to *ALL* years.

“200” series and “300” series courses are available to second and third year students.

If a “200” or “300” course is available to first year students the roman numeral (I) will appear in brackets under the course number. To take any such course the *permission of the instructor* (P.I.) is required.

## Courses Offered at Erindale

### ANTHROPOLOGY

- ANT 100E **Introduction to Anthropology, 2L,1P**  
A survey of the socio-cultural, pre-historic and biological aspects of man including the origin and development of *Homo-sapiens* and the cultural mechanisms that enable man to adapt to his environment.
- ANT 201EF **Peoples of the Old World I, 2L,1T**  
(I) Area to be announced.  
*Pre-requisite:* P.I.
- ANT 202ES **Peoples of the Old World II, 2L,1T**  
(I) Area to be announced.  
*Pre-requisite:* P.I.
- ANT 204E **Social and Cultural Anthropology, 2L,1T**  
(I) The comparative study of social institutions: the individual in society: contact between cultures.  
*Pre-requisite:* P.I.
- ANT 208ES **Folklore, 2L,1T**  
(I) Oral tradition as a reflection of culture, its role in society, and in the reconstruction of culture history. The collection and analysis of folk tales.  
*Pre-requisite:* P.I.
- ANT 209E **Tribal Religions, 2L,1T**  
(I) The social implications of religious behaviour. Some basic concepts and techniques in tribal religions with discussion of selected world views. Religion and cultural dynamics. (See also REL 230EF)  
*Pre-requisite:* P.I.
- ANT 220EF **Archaeological Field Methods, 2P**  
(I) Instruction in archaeological field techniques through excavation of a prehistoric site located near Erindale College and by laboratory instruction.  
*Pre-requisite:* P.I.
- ANT 221ES **Archaeological Laboratory Analysis, 2P**  
(I) Analysis and description of archaeological material; primitive technology and archaeological interpretation.  
*Pre-requisite:* ANT 220EF and P.I.

- ANT 225ES **North American Archaeology, 2L,1P**  
 (I) A survey of culture history from the first appearance of man in North America until the coming of the Europeans. Selected readings will provide the broad outline; lectures will discuss dating, methods of analysis and offer detailed summaries of the evidence of selected sites and their interpretation to show how these contribute to the development of the total cultural picture.
- ANT 226E **Old World Prehistory, 2L,1T**  
 (I) Survey of 2 million years of cultural development from the beginning of the Palaeolithic through Neolithic and early Bronze Age.  
*Pre-requisite: P.I.*
- ANT 304EF **Status and Role in Canadian Indian Society, 2L,1T**  
 An examination of variables in the acculturative situation, emphasizing individual research.  
*Pre-requisite: ANT 204E or P.I.*
- ANT 338EF **Primate Paleontology and Anatomy, 2L,2P**  
 A survey of the palaeontological evidence and the evolution of the order Primates, including the study of the soft and skeletal anatomy of representatives of different taxa of living primates. (See also BIO 250E and BIO 251E)  
*Pre-requisite: ANT 203E/P.I.*
- ANT 339ES **Human Adaptability, 2L,1P**  
 A survey of the nature and range of biological variation in modern man.  
*Pre-requisite: ANT 203E/P.I.*
- ANT 398E **Independent Reading**  
 Supervised study of selected anthropological topics.  
*Pre-requisite: P.I.*
- ANT 399E **Independent Research**  
 Supervised research in anthropology.  
*Pre-requisite: P.I.*

### ASTRONOMY

(See also Earth and Planetary Sciences)

- AST 100 **Introduction to Astronomy, 1L,1T,1P**  
 A general survey of astronomy intended for First Year students as well as for generalists in higher years. The course contains a



descriptive treatment of the nature of solar and sidereal systems and the present conception of the structure of the universe.

**AST 220      General Astronomy, 1L,1T,1P**

A survey course in astronomy intended for specialists in science in the second or higher years. Emphasis would be placed on current developments as well as on the application of basic physics to astronomical problems.

*Pre-requisite:* PHY 110

### **BIOLOGY**

**BIO 100E      The Study of Life, 2L,3P**

Organized around three major abstract concepts: Time (Evolutionary Processes and Products), Energy (Its Procurement and Utilization by Living Organisms), and Information (The Organization of Living Systems). It presents an integrated study of life at four levels: molecular, cellular, organismal, and social; leading the student to an awareness of the five unique characteristics of living material, i.e. Organized Structure, Specialized Function, Growth and Development, Heredity, and Evolution. Practical sessions will introduce the student to a wide range of material and techniques. Recommended for all students considering subsequent courses in Biology.

**BIO 110E      Field Biology, 5P**

A practical field and laboratory course designed specifically to acquaint the student with plants and animals in the local environment. In the field observation and recognition will be emphasized. Identification and collection techniques will be employed in the laboratory. A course in natural science of use to all biologists.

**BIO 130E      Man and Environment, 1L,1T,2P**

The ecological problems confronting humanity are examined on both a local and a global scale. Attention is given to the population problem, pollution, the world food situation, and the current and projected status of resources. Divergent opinions as to the seriousness of present trends are presented by bringing in outside speakers (geographers, economists, engineers, ecologists, agronomists and politicians) and emphasis is placed on stimulating vigorous dialogue which the student will be encouraged to examine critically before taking up a personal position. Organized on a fairly informal seminar basis supplemented by field trips and opportunity is provided for each student to follow up topics of interest by undertaking individual projects.

JPZ 200E — *See Interdisciplinary Courses.*

**BIO 230E Ecology, 2L,3P**

The study of the relationships of plants and animals to environment. The composition, structure and function of natural ecosystems at the population, community and biosphere levels of organization. The quantitative and qualitative description of populations in terrestrial and aquatic environments and the influence of man on these ecosystems will be stressed.

*Pre-requisite:* BIO 100.

*Co-requisite:* BIO 110E recommended.

JBC 220E — *See Interdisciplinary Courses.*

**BIO 240E Genetics, 2L,3P**

A course presenting current concepts in genetics. Examples are drawn from microbes, plants, animals and viruses to illustrate: the molecular structure of the gene, mechanisms of gene action and gene regulation, levels of genetic organization in different life forms, basic population genetics, and genetical aspects of evolution. Practicals will include both plant and animal material and will involve carrying out both directed and independent experiments. Much of the laboratory work will involve *Drosophila*.

*Pre-requisite:* BIO 100/120.

*Co-requisite:* BIO 260E recommended.

**BIO 241E Cell Biology, 2L,3P**

Cell structure and function. Cell organization at the molecular and organelle level will be considered in bacterial, animal and plant cells. Topics include the structure of plasma membranes, nuclei, mitochondria, plastids and other organelles, and localization of the chemical reactions in these structures. In the laboratory, the student will become familiar with the current techniques and instruments of cell and molecular biology.

*Pre-requisite:* BIO 100/120 recommended.

*Co-requisite:* JBC 220E recommended.

**BIO 250E Structure and Evolution in Plants, 2L,3P**

Lectures, laboratory periods, field trips, and seminars are combined to give the student a knowledge of the major plant groups and their evolutionary relationships as inferred from morphology, anatomy, reproductive systems, and the fossil record. The course also provides

the student with an introduction to systematic theory. (See also ANT 338EF.)

*Pre-requisite:* BIO 100/120 or P.I.

**BIO 251E Animal Form and Function, 2L,3P**

The gross structure of vertebrate and invertebrate animals is considered in functional terms. Evolution provides a central theme. Lectures include such topics as, 'The analysis of animal movement' and 'The structure of sensory transducers'. Descriptive and experimental laboratory exercises provide a basic understanding of animal morphology.

*Pre-requisite:* BIO 100/120 or P.I.

**BIO 252E Developmental Biology, 2L,3P**

Processes of growth and development in plants and animals. Laboratories emphasize the descriptive embryology of the chick and the morphogenesis of plants and include techniques of tissue preparation. Differentiation, metamorphosis and regeneration are additional topics.

*Pre-requisite:* BIO 100/120.

**BIO 260E Biometrics, 2L,1T,2P**

Combines the roles of (a) a service course for students specializing in biological and social sciences, and (b) an introduction to biometric methods for those intending to pursue further work in mathematical biology. The first term comprises a review of commonly used statistical procedures, together with the models upon which they are based, while the second half is devoted to techniques in multivariate analysis.

*Co-requisite:* CSC 108Y recommended.

**BIO 320E Plant Physiology, 2L,3P**

Study of principle physiological processes of plants and the influence of environmental factors on these processes. Topics will include: water relations, mineral nutrition, translocation, photosynthesis, respiration, general metabolism, growth and development.

*Pre-requisite:* BIO 100/120 and CHM 120.

**BIO 321E Animal Physiology, 2L,3P**

A comparative approach will be taken in the study of physiological processes in animals. Topics will include respiration, excretion, osmoregulation, ionic regulation and the physiology of muscle and nerve.

*Pre-requisite:* BIO 100/120 and CHM 120.

**BIO 322ES Ethology, 2L,3P**

The behavior of lower vertebrates and invertebrates. Topics include chemical, visual and acoustic communication, animal orientation and navigation, aggression, mating and social behavior. Genetic, hormonal and neurophysiological aspects of behavior are discussed. Projects will be assigned involving both laboratory experimentation and library research.

*Pre-requisite:* BIO 100/120.

**BIO 330E Plant Ecology, 2L,3P**

The relationships of plant species, populations and complexes on the sociological, environmental and physiological levels. Practical field work and laboratory studies and experimentation is included. Provides a basis for practical training in conservation and environmental quality research.

*Pre-requisite:* BIO 223E & BIO 218E recommended.

*Co-requisite:* BIO 110E recommended.

**BIO 331E Animal Ecology, 2L,3P**

Comparative studies of a variety of aquatic and terrestrial habitats will be made both in the field and in the laboratory at the organism, population, community and ecosystem levels of organization. Natural history, population dynamics, energy flow and simple models will be used in describing the role of animal, mainly invertebrates, in the environment.

*Pre-requisite:* BIO 218E and BIO 223E recommended.

**BIO 370E General Microbiology, 2L,3P**

Historical development of microbiology; structure and ultrastructure of microorganisms; physiology and nutrition of bacteria; growth and cultivation of bacteria; classification of bacteria; nature of viruses; bacteriophage and a limited survey of animal viruses and their properties; microorganisms in medicine, industry and agriculture; basic concept in immunology; a limited survey of microbial genetics; microbial ecology.

*Pre-requisite:* BIO 100/120.

*Co-requisites:* CHM 245S, JBC 220E/BIO 241E.

## CHEMISTRY

**CHM 120E Basic Concepts of Modern Chemistry, 2L,1T,2P**

Current knowledge of the electronic structures of atoms and molecules is used to understand the Periodic Table and theories of chemical



bonding. Introduction to organic chemistry. Elementary concepts of chemical thermodynamics and their application to chemical equilibria. Reaction kinetics and chemical reactivity in relation to structure and mechanism.

*Pre-requisite:* XIII CHM and MAT A (Those without XIII CHM may be allowed to take this course by P.I.)

*Co-requisite:* MAT 135 & PHY 110 recommended for those intending to specialize in chemistry.

**CHM 220E Chemical Statics and Dynamics, 2L,1T**

Elementary quantum mechanics with special emphasis on rotors and vibrators. Principles and applications of electronic, vibrational, rotational and magnetic resonance spectroscopy. The second and third laws of thermodynamics. Kinetic molecular theory and elementary statistical mechanics. Reaction kinetics and its application to the elucidation of reaction mechanisms. (This course should be taken by all students intending to pursue a Specialist Programme in Chemistry.)

*Pre-requisite:* CHM 120.

*Co-requisite:* MAT 235E/MAT 244F & APM 246SE.  
PHY 211E recommended.

JBC 220E — *See Interdisciplinary Courses.*

**CHM 235EF Introduction to Organic Chemistry, 2L,4P**

A brief introduction to bonding and structure. The synthesis and reactivity of the major types of organic compounds. Spectroscopic methods for structure determination. The laboratory, and the associated tutorial programme, deals with theory and practice of both synthetic and analytical techniques. (As well as constituting part of the chemistry core programme, this course would be essential preparation for students intending to proceed to studies in medicine or dentistry.)

*Pre-requisite:* CHM 120.

**CHM 236ES Introduction to Inorganic Chemistry, 2L,4P**

Bonding and structure of transition metal complexes; physical and spectroscopic methods applied to structure determination; thermodynamics of the solid state. The laboratory, with an associated programme of tutorials, will incorporate the study of fundamental techniques in both synthetic and analytical inorganic chemistry. (Required for Specialist Programme in Chemistry.)

*Pre-requisite:* CHM 235EF

**CHM 245S Chemistry of Natural Products, 2L**

A brief treatment of many important classes of biologically important, naturally occurring organic compounds. Each group of compounds will be considered from the standpoint of structure, properties and synthesis and among the types of compound considered will be terpenes, steroids, alkaloids, carbohydrates, amino-acids and proteins and nucleic acid components. Chemically less well-defined groups of compounds such as vitamins and antibiotics will also be discussed. Useful preparation for students interested in certain III year Biology courses as well as those interested in Organic Chemistry.

*Pre-requisite:* CHM 235EF

**CHM 320E Physical Chemistry, 2L,4P**

A more advanced course in physical chemistry covering statistical mechanics, quantum mechanics, collision theory and reaction kinetics in more mathematical detail. There will be a 7 hr. lab. on alternate weeks. The students will undertake 1 or 2 major projects during the year. (Should be taken by all students intending to pursue a Specialist Programme in Chemistry.)

*Pre-requisite:* CHM 220, MAT 235/244F and APM 246ES.

*Co-requisite:* MAT 335, PHY 311 recommended.

**CHM 330E Inorganic Chemistry, 2L,4P**

The chemistry of the non-transition elements will be discussed largely from the point of view of halides, oxides, and hydrides. Some coverage of specific aspects of individual elements or groups of elements will be included. The emphasis will be largely on descriptive chemistry, but also with correlations to be drawn between chemical properties and structure and/or bonding. Some stress will be laid on the means for determining physical properties and structure.

*Pre-requisite:* CHM 221.

**CHM 340E Organic Chemistry, 2L,4P**

The stereochemistry of organic compounds in relation to their physical and chemical properties, and to the factors affecting rates of reaction. Mechanistic aspects involved in organic synthesis. The application of both stereochemical and mechanistic considerations to the synthesis of polyfunctional organic compounds in both lecture and laboratory. Carbon compounds containing nitrogen, sulfur, silicon and phosphorus. Should be taken by all students intending to pursue a Specialist Programme in Chemistry.

*Pre-requisite:* CHM 221.

**CHM 350EY Instrumental Methods in Chemistry, 1T,3P**

Designed to provide an appreciation of the scope and limitations of some of the more widely used techniques of instrumental analysis. A range of instrumental experiences will be available to allow the student to direct his training according to his interest and/or future requirements. (Biology, Earth and Planetary Science and Physics students would find this course useful.)

*Pre-requisite:* CHM 120 & CHM 221.

*Co-requisite:* CHM 235EF & 236ES if CHM 221 not already taken.

**CLASSICS**

(See also PHL 211F and PHL 212S)

**LAT 100 Introductory Latin, 4T**

Designed to acquaint the student with the essentials of the Latin language and to introduce him to Roman Literature.

**LAT 120S The Poetry of Catullus, 3T**

Selections from the work of Catullus, including both his love poems and his satiric epigrams. Concentrates on the literary value of Catullus' work. Includes study of the Latin language.

*Pre-requisites:* XIII Latin & Latin 123F.

**LAT 123F Cicero and Roman Oratory, 3T**

Reading of Cicero Pro Caelio. This speech, which deals with a cause celebre in the circle of Catullus, will be studied for the light which it sheds on social life at the end of the Roman Republic and to illustrate Cicero's skill as an orator. Includes study of the Latin language.

*Pre-requisite:* XIII Latin.

**LAT 223E Virgil I, 3T**

Reading and study of selected works (*Ecloques, Georgics, Aeneid*).

*Pre-requisites:* Latin 120S & Latin 123F and P.I.

**LAT 320 Virgil II, 3T**

*Pre-requisite:* LAT 220E

**GRK 100 Introductory Greek, 4T**

An introduction to the study of the ancient Greek language, and the reading of Greek prose.

**GRK 120S The Wanderings of Odysseus, 3T**

Homer; *Odyssey* 6, 9, 11. Further study of language.

*Pre-requisite:* XIII Greek or Greek 100.

*Co-requisite:* Greek 122F.

- GRK 122F **Socrates on Trial, 3T**  
 Plato; *Apology* of Socrates. Further study of language.  
*Pre-requisite:* XIII Greek or Greek 100.  
*Co-requisite:* Greek 120s.
- GLL 200 **Greek and Roman Drama, 1L,2T**  
 A study of selected plays: Aeschylus, Sophocles, Euripides, Aristophanes, Menander, Plautus, Terence and Seneca.
- GRH 100 **Greek and Roman Civilization, 2L,1T**  
 Its political, economic and cultural evolution, beginning in an age of independent city-states, reaching rich maturity in the Hellenistic age of Great Powers, and culminating in the multiracial and multicultural Roman empire.
- GRH 211F **Alexander the Great, 2L,1T**  
 The career and achievement of Alexander; his personality, policy and aims; his place in history. Involves the use of the original sources in translation.  
*Pre-requisite:* P.I.
- GRH 213S **Constantine the Great, 2L,1T**  
 The Roman empire at the end of the third century; paganism and Christianity and their conflict; the career of Constantine; the effects of his work on the Church, the State and Europe.  
*Pre-requisite:* P.I.
- GRH 313 **The Julio-Claudian Emperors, 2L,1T**  
 (I) A topic course best suited to senior students.  
*Pre-requisite:* P.I.

### EARTH AND PLANETARY SCIENCES

(See also Astronomy, Geography & Physics)

- EPS 100E **Elementary Geonomy, 1L,1T,2P**  
 An introduction to the properties and behaviour of the Earth, including sea-floor spreading, continental drift, and an outline of world geology and regional geophysics.
- EPS 210E **Introduction to Planetary Materials, 1L,1T,2P**  
 (I) An introduction to the materials of the solar system emphasizing the physical and chemical principles and the tools of mineralogy, petrology and ore geology.  
*Pre-requisite:* Grade XIII CHM.  
*Co-requisite:* EPS 100E.



**EPS 220E Evolution and Geochronology, 1L,1T,2P**

An introduction to nucleosynthesis, the age of the earth, the origin of life and a survey of isotope geochronology and evolution.

*Pre-requisite:* Grade XIII Chemistry and (PHY 225FE & PHY 226SE).

**ECONOMICS****ECO 100 Introduction to Economics, 3L,1T**

A survey course with emphasis on the basic concepts in macro and micro economic theory and international trade. The techniques economists use to analyze problems. The concepts introduced will include: national income and its determination; monetary and fiscal techniques; business cycle theory; the derivation and use of supply and demand schedules; the theory of the firm and the principles of comparative advantage and tariff protection.

**ECO 200 Microeconomic Theory, 2L,1T**

The microeconomic theory of pricing; the determination of prices through the interaction of the basic economic units; the household as consumer and the business firm as producer; the role of the pricing system as the mechanism by which social and individual decisions are made in a capitalist economy. Applications of the theory are examined.

*Pre-requisite:* ECO 100.

**ECO 202E Macroeconomic Theory, 2L,1T**

A detailed discussion of the theory of output, employment and the price level; of the techniques available for achieving economic stability; of central banking and Canadian financial institutions and markets, and of foreign-exchange markets.

*Pre-requisite:* ECO 100.

**ECO 207 Economic History of Europe, 2L,1T**

An analysis of the patterns of economic transformation in Europe from the Roman Empire to the Industrial Revolution with emphasis on intertemporal causal relationships.

*Pre-requisite:* P.I.

**ECO 221 North American Economic History, 2L,1T**

An examination, through the use of rigorous economic concepts of the growth patterns of the United States and Canada. The theme of the course is an attempt to explain the lags in Canadian development, as compared to the American model.

**ECO 225E Intermediate Economic Theory, 2L,1T**

A continuation of macro and micro economic theory designed to develop a sufficient theoretical basis for more specialized courses in applied theory and policy. The first term introduces further discussion and a critical assessment of the elements of Keynesian economics. The second term analyzes the theory of imperfect competition and includes a critique of the traditional theory of the firm. (Not offered in 1970-71.)

*Pre-requisite:* ECO 100.

**ECO 228E Contemporary Economic Problems and Policy, 2L,1T**

Focuses on the application of theoretical concepts, many of which were introduced in Economics 100, to issues such as the economics of inflation; federalism; rehabilitation and job-training; poverty and discrimination; international monetary reform; and underdeveloped countries and foreign aid.

*Pre-requisite:* ECO 100.

**ECO 324 Economic Development, 2L,1T**

Emphasis is on the economic conditions of low-income countries and the prospects for their economic transformation. Frequent reference will be made to specific issues affecting the nations of Africa, Asia and Latin America.

*Pre-requisite:* ECO 225E.

**ECO 328 International Economics and Policy, 3L**

An analysis of the nature, effects and policy implications of international trade and finance. The theories of comparative costs and reciprocal demand; factor reward equalization; balance of payments and foreign exchanges; international tariffs; liquidity; customs unions; and relevant topics related to current problems in international economic affairs.

*Pre-requisite:* ECO 225E or P.I.

**ECO 336 Public Finance, 2L,1T**

The construction of an economic theory of government to explain the determination of the budget and to provide an economic rationale for government intervention; an analysis of changing patterns of expenditure and revenue of federal and provincial government; the development of criteria for the evaluation of expenditure programmes and the tax structure; the problems and techniques of fiscal stabilization.

*Pre-requisite:* ECO 225E.

**ECO 346E Senior Seminar in Economics, 2L**

A research seminar. Students undertake one or more substantial research papers under close supervision.

*Pre-requisite:* ECO 225E and P.I.

**ENGLISH**

(See also PHL 210S and JLP 220F)

**ENG 108 Forms of Twentieth Century Literature, 3L**

Five of the following novels: Conrad, *Heart of Darkness*; Lawrence, *Sons and Lovers*; Woolf, *To the Lighthouse*; Hemingway, *Farewell to Arms*; Fitzgerald, *The Great Gatsby*; Waugh, *A Handful of Dust*; Faulkner, *Light In August*; a more recent novel to be selected. Five of the following plays: Shaw, *Major Barbara*; O'Casey, *Juno and the Paycock*; O'Neill, *Long Day's Journey into Night*; Williams, *The Glass Menagerie*; Fry, *The Lady's Not For Burning*; Osborne, *Luther*; Pinter, *The Caretaker*; Albee, *Who's Afraid of Virginia Woolf?*; a play to be selected. Three of the following poets, Yeats, Frost, Eliot, Williams, Auden, Dylan Thomas, Stevens, a younger poet. Additional works may be selected.

**ENG 152 Canadian Literature in English, 3L**

*Selections from The Book of Canadian Prose* (ed. Smith); Moodie, *Roughing It in the Bush*; Callaghan, *More Joy in Heaven*. Four to six additional novels. Selected poetry and short fiction. Recommended reading: *Canadian Anthology* (ed. Klinck and Watters, 2nd ed.); supplementary texts may be selected.

**ENG 212 Shakespeare, 3L**

(I) A study of at least ten plays.

**ENG 218 Major American Authors, 3L**

(I) Study of a number of American authors – no fewer than four and no more than six – chosen from different periods and so as to suggest something of the range of American Literature. At least four authors drawn from the following list: Hawthorne, Melville, Whitman, Twain, James, Stevens, Eliot, Faulkner.

**ENG 220 Varieties of Prose Fiction, 3L**

(I) A study of various forms of prose fiction from different periods of English Literature.

- ENG 230      **Varieties of Drama, 3L**  
 (I)      Approximately twenty plays from different historical periods and genres.
- ENG 240      **English Poetry, 3L**  
 (I)      A study of various forms, themes, styles and traditions.
- ENG 304      **English Poetry and Prose, 1600–1660, 3L**  
 Selected poetry of Donne, Jonson and their successors. Milton. Prose by writers such as Bacon, Browne, Burton, Milton, Traherne. Fulfills specialization requirement.
- ENG 306      **English Poetry, Prose and Drama 1660–1800, 3L**  
 A special study of the works of Dryden, Swift, Pope, and Johnson. Pepys, selections from *The Diary* (Torchbooks); Addison and Steele, Selections from *The Tatler* and *The Spectator* (recommended edition, R. J. Allen, ed. Rinehart Editions); Horace Walpole, selected letters; Boswell, *The Life of Samuel Johnson*; Wycherley, *The Country Wife*; Congreve, *The Way of the World*; Gay, *The Beggar's Opera*; Sheridan, *The School for Scandal*; selections from *English Prose and Poetry, 1660–1800* (Rinehart Editions). Fulfills specialization requirement.
- ENG 308      **Romantic Poetry and Prose, 3L**  
 Blake, Wordsworth, Coleridge, Byron, Shelley, Keats for special study; brief selections from other poets of the period such as Crabbe, Scott, Landor, Clare; Wordsworth, *Preface to Lyrical Ballads*, *Preface to the Edition of 1815*; Coleridge, *Biographia Literaria*; Shelley, *Defence of Poetry*; Keats, selected letters; selected writings of Lamb and Hazlitt. Fulfills specialization requirement.
- ENG 312      **Chaucer, 3L**  
 A study of *Troilus and Criseyde*; selections from *The Canterbury Tales* and other works. Fulfills specialization requirement.
- ENG 324      **Fiction, 1832–1900, 3L**  
 At least twelve works, including one or more by each of Dickens, Thackeray, Trollope, Emily Brontë, George Eliot and Hardy. Fulfills specialization requirement.
- ENG 328      **Modern Novel, 3L**  
 At least fifteen works chosen from the period 1900–1945 including



one or more by each of the following: James, Conrad, Joyce, Lawrence, Faulkner.

Fulfills specialization requirement.

ENG 338

**Modern Drama, 3L**

Wilde, *The Importance of Being Earnest*; Shaw, *Major Barbara*, *Heartbreak House*, *Saint Joan*; Synge, *Riders to the Sea*, *The Playboy of the Western World*; O'Casey, *The Plough and the Stars* and a later play; Eliot, *Murder in the Cathedral*; Yeats, *On Baile's Strand*, *Purgatory*; O'Neill, *The Emperor Jones*, *Long Day's Journey into Night*; Williams, *A Streetcar Named Desire*; Miller, *Death of a Salesman*; Beckett, *Waiting for Godot*; Osborne, *Look Back in Anger*; Pinter, *The Caretaker*; Albee, *Who's Afraid of Virginia Woolf?* Three plays chosen from the work of *three* of the following: Pinero, Maugham, Galsworthy, Wilder, Fry, Dylan Thomas, Simpson, Arden, and a Canadian dramatist. Additional reading: plays by Ibsen, Chekhov, Strindberg, Pirandello, Brecht, Sartre, Ionesco.

Fulfills specialization requirement.

ENG 348

**Modern Poetry, 3L**

Intensive study of various forms of modern poetry.

Fulfills specialization requirement.

## FRENCH

(See also PHL 210s and PHL 215F)

FRE 100

**Tragic Literature, 1L,1T**

A study of the tragic mode in selected novels and plays. Texts studied in the original French but students may choose lectures and tutorials conducted in *either* French *or* in English. Does *not* fulfill specialization requirement.

*Pre-requisite:* Reading knowledge of French.

FRE 120

**Introduction to University Studies, 2L,1T,2P**

A language course with special emphasis on oral expression: work includes language practice, phonetics, grammar, composition and language laboratory work. Selections from contemporary French Literature will also be included for study and discussion.

*Pre-requisite:* XIII French.

FRE 140

**Modern French Literature, 1L,1T**

Specific texts in 19th and 20th century poetry, novel and drama. A practical introduction to techniques of literary criticism and analysis.

*Pre-requisite:* XIII French.

*Co-requisite:* French 120.

- FRE 142      Man and Society in Fiction, 1L,1T**  
 Contemporary French and French-Canadian novels providing an introduction to critical studies in Fiction.  
*Pre-requisite:* XIII French.  
*Co-requisite:* French 120.
- FRE 200      Comic Literature, 1L,1T**  
 (I) The comic mode in selected novels and plays. Texts studied in the original French. Students may choose lectures and tutorials conducted either in French or in English. Does *not* fulfill specialization requirement.  
*Pre-requisite:* Reading knowledge of French.
- FRE 271      Language Practice, 2L,1T,2P**  
 A continuation of French 120, including grammar, composition, oral, vocabulary, pattern drills, language laboratory work, and practical phonetics.  
*Pre-requisite:* French 120.
- FRE 290      Independent Study**  
 Individual work with a member of staff on a literary or language topic of common interest, including readings, discussions, papers. Students may study two topics, each counting as one half of the course.  
*Pre-requisite:* French 120 and P.I.
- FRE 300      French Realism and Idealism, 1L,1T**  
 A study of realistic and idealistic tendencies in selected examples of French fiction, theatre and poetry. Texts studied in the original French. Students may choose lectures and tutorials conducted either in French or in English. Does *not* fulfill specialization requirements. (Course not offered 1970–71.)  
*Pre-requisite:* French 100/120/200.
- FRE 328      Symbolism and Surrealism, 1L,1T**  
 Specific texts will be studied, with emphasis on the main period of the movement. (Course not offered 1970–71.)  
*Pre-requisite:* French 120.
- FRE 330      French Canadian Literature, 1L,1T**  
 Texts from different genres will be studied.  
*Pre-requisite:* French 120.
- FRE 342      French Poetry, 1L,1T**  
 An introductory study, 1500–1950.  
*Pre-requisite:* FRE 120.

- FRE 352 Drama from 1600–1800, 1L,1T**  
Specific plays from the period dealing with aspects of comedy, tragedy and social drama.  
*Pre-requisite:* FRE 120.
- FRE 354 Drama from 1800–1950, 1L,1T**  
Continuation of FRE 352 with emphasis changing from Classical theatre to the evolution leading to modern theatre.  
*Pre-requisite:* FRE 120.
- FRE 362 Prose Fiction from 1600–1800, 1L,1T**  
Specific texts from the period designed to illustrate the variety of approaches to the novel taken by leading French authors.  
*Pre-requisite:* FRE 120.
- FRE 364 Prose Fiction from 1800–1950, 1L,1T**  
Continuation of FRE 362 with emphasis shifting to “Modern” period.  
*Pre-requisite:* FRE 120.
- FRE 371 Language Practice, 2L,1T,2P**  
A continuation of FRE 271, designed to advance the student’s competence in written and spoken French.  
*Pre-requisite:* FRE 271.
- FRE 372 The Structure of Modern French, 1L,1T**  
The study of the phonological, morphological and syntactical systems of contemporary French: and introduction to French linguistics. Recommended to students preparing for a teaching career in French language and literature. (See also JLP 200EF.)  
*Pre-requisite:* FRE 120.
- FRE 374 Introduction to Stylistics, 1L,1T**  
Deals with contemporary spoken and written French.  
*Pre-requisite:* FRE 120.
- FRE 390 Independent Study**  
Individual work with a member of staff on a literary or language topic of common interest, including readings, discussions, papers. Students may if they wish arrange to study two topics, each of which will be considered as constituting one half of the course.  
*Pre-requisite:* Any French course over 200 and P.I.

- FRE 428 Contemporary French Literature, 1L,1T**  
 The study of the novel and theatre since circa 1950 with special reference to *le nouveau roman* and *l'anti-théâtre*.  
*Pre-requisite:* Any French course over 200.

### GEOGRAPHY

- GGR 101EF Introduction to Geomorphology, 2L,2P**  
 Gross morphology and clima-geomorphic regions of the earth. Rates of regional denudation in relation to climate, relief and rates of uplift. Qualitative introduction to the main types of erosional, transportational and depositional processes and their associated landforms. Weathering and mass movements. Fluvial processes. Glacial landforms. Marine landforms. Wind action. Introduction to some basic concepts of geomorphology such as relations of 'structure, process and stage', magnitude and frequency concept of erosion, and climate and landforms.
- GGR 102ES Introduction to Climatology, 2L,2P**  
 Atmospheric variables in time and space, fluxes and balances of radiation, heat and moisture; climatic regions. Relations of plants and animals to climatic phenomena.
- GGR 103EF Introductory Economic Geography I, 2L,1T**  
 An introduction to man's use of his environment for earning a living; interrelationships among areas of supply and demand for goods and services.
- GGR 104ES Introductory Economic Geography II, 2L,1T**  
 Principles of location of agricultural, manufacturing, and service industries.  
*Pre-requisite:* GGR 103EF.
- GGR 105EF Cultural Geography I, 2L,1T**  
 The relations between human culture and the physical environment. Emphasizes the development of knowledge and techniques of resource utilization. (Not offered in 1970-71.)
- GGR 106ES Cultural Geography II, 2L,1T**  
 Contemporary patterns and problems of cultural phenomena. Population geography. Environmental pollution. Deterioration and conservation of the resource base. (Not offered in 1970-71.)  
*Pre-requisite:* GGR 105EF/P.I.



- GGR 201EF Geographical Methods I, 2L,2P**  
 An introduction to geographical methods in field work, cartography and statistical interpretation of geographical data.  
*Pre-requisite:* Any two half courses in GGR.
- GGR 202ES Geographical Methods II, 2L,2P**  
 More advanced instruction in Geographical Methods.  
*Pre-requisite:* GGR 201EF.
- GGR 203EF Introduction to Urban Geography I, 2L,2P**  
 The principles of urban geography, embracing discussions about the distribution, form and function of cities.  
*Pre-requisite:* Any two half courses in GGR.
- GGR 204ES Introduction to Urban Geography II, 2L,2P**  
 A series of studies of specific problems in Urban Geography.  
*Pre-requisite:* GGR 203EF.
- GGR 205EF Geography of Canada I, 2L,2T**  
 An introduction to the Historical Geography of Settlement, the physical background and the patterns of commodity production and service industries.  
*Pre-requisite:* Any two half courses in GGR.
- GGR 206ES Geography of Canada II, 2L,2T**  
 More advanced studies of regional problems in Canadian Geography.  
*Pre-requisite:* GGR 205EF.
- GGR 207EF Principles of Geomorphology, 2L,2P**  
 Comprises a rigorous examination of the principles controlling the shaping of the surface features of the earth and the distribution of earth patterns.  
*Pre-requisite:* GGR 101EF or P.I.
- GGR 208ES Problems in Geomorphology, 2L,2P**  
 More advanced and detailed examination of a number of important examples of geomorphological phenomena.  
*Pre-requisite:* GGR 207EF.
- GGR 301EF Research Reading Course in Geography, 1T**  
 An advanced student may select a special field of geography and pursue a reading course in it under supervision of a member of the geography staff.  
*Pre-requisite:* P.I.

**GGR 302ES Research Project in Geography**

An advanced student may elect a research project in his special field, carry on investigations and compile a research report under the supervision of the staff advisor.

*Pre-requisite:* GGR 301EF.

**GGR 303EF Man and Nature, 2L, 1T**

A reading and seminar course in which some of the themes introduced in GGR 106 will be explored further. Occasional lectures will be given but the main emphasis will be on seminar presentation and discussion.

*Pre-requisite:* GGR 106ES or P.I.

**GGR 304ES Transportation Geography**

Principles of transportation and land use; measurements of transportation networks and movements; transportation and economic development, past and present; contemporary transportation problems.

*Pre-requisite:* GGR 103EF and GGR 104ES.

**GGR 305EF Pleistocene Environments I**

The causes and consequences of the environmental changes of the Pleistocene. The approach taken will be an interdisciplinary one combining Geology, Geomorphology, Biogeography, and Climatology. Special attention will be given to the effects of glaciation in southern Ontario. Field work and laboratory analysis of deposits will be an integral part of the course.

*Pre-requisite:* GGR 101 & GGR 102ES/P.I.

**GGR 306ES Pleistocene Environments II**

Builds upon material covered in the first term and deals with specific topics from both the New and Old Worlds.

*Pre-requisite:* GGR 305EF.

**GGR 307EF Agricultural Geography I, 2L,2T**

Background discussions in agricultural origins, agricultural ecology, and the economic development of agriculture.

*Pre-requisite:* Any four half courses in GGR.

**GGR 308ES Agricultural Geography II, 2L,2T**

Special topics in agricultural geography and the examination of agricultural regions.

*Pre-requisite:* GGR 307EF.

# GERMAN

- GER 105     **Reading German, 3T**  
 Training in reading scholarly German for students with little or no previous knowledge of German and who find it desirable to improve their comprehension of the language. Does *not* fulfill specialization requirement.
- GER 110     **Language Practice I, 2T,2P**  
 An intensive course in learning to write and speak German. Within the framework of this course the cultural background of the German speaking countries will be explored.  
*Pre-requisite:* XIII GER or P.I.
- GER 130     **Literature of the 19th and 20th Centuries, 2L,1T,1P**  
 Illustrates major trends in literature. Practice in Language learning.  
*Pre-requisite:* XIII GER or P.I.
- GER 210     **Language Practice II, 2T,1P**  
 An intensive course in learning to write and speak German for those students who are particularly interested in gaining an active command of the language.  
*Pre-requisites:* GER 121/GER 140/P.I.
- GER 220     **Literature of the Enlightenment and of Storm and Stress, 2L,1T**  
 A study of the works of the German *Aufklärung* and of the young Goethe, the young Schiller, and their contemporaries.  
*Pre-requisites:* GER 121 or P.I.
- GER 420     **Prose and Poetry; 1885–1945, 2L, 1T**  
 A consideration of significant writers in modern German Literature such as Nietzsche, Stefan George, Hofmannstahl, Thomas Mann, Rilke and Kafka.  
*Pre-requisite:* GER 121 or P.I.
- GER 422     **Contemporary Literature, 2L,1T**  
 An investigation of post-war trends in the literature of the German speaking countries from 1945 to the present day. Included are such authors as Günther Grass, Hans Magnus Enzensberger, Martin Walser, Wolfgang Borchert, Heinrich Böll, Paul Celan, Wolf Biermann, Erwin Strittmatter, Hans Erich Nossack, and others.  
*Pre-requisites:* GER 240 or P.I.

## HISTORY

(See PHL 301F, PHL 302S, SPA 340 and GRH courses)

- HIS 100E **Europe and the World 1789–1969, 2L,1T**  
Modern Europe from the French Revolution to the 1960's, with special emphasis on Europe's relations to other parts of the world. Political, economic, social and cultural aspects will be covered.
- HIS 200E **The United States 1607–1968, 2L,1T**  
(I) An introduction to American history, from the earliest colonial settlements to the present. Primary attention devoted to political developments, but economic, social and intellectual factors will also be examined.
- HIS 201E **Canada 1663–1967, 2L,1T**  
A survey of the political, social and economic history of Canada, topically treated, from 1663–1967.
- HIS 202E **Spain, 2L,1T**  
A general survey of the history of Spain: political, social, economic, and cultural.
- HIS 203E **Latin America – Survey, 2L,1T**  
The history of Latin America: political, social, economic and cultural. Special emphasis *may* be given to particular countries.
- HIS 204E **Italy or Germany, 2L,1T**  
A general survey of the history of Italy or Germany: political, social, economic and cultural.
- HIS 300E **19th Century Britain, 2L,1T**  
The major themes of British history from the late 18th century: the emergence of industrial society, the fate of aristocracy, religion, cultural and intellectual change; external relations, constitutional development and political history.
- HIS 301E **Parties and Politics – Canada 1867–1967, 2L**  
A specialized field in Canadian history.  
*Pre-requisite:* P.I.
- HIS 302E **Race and Ethnic Minorities in American History, 2L**  
Concepts of nationality and race and the problems of assimilation and acculturation of the immigrant, the negro, the Indian in America's past.  
*Pre-requisite:* P.I.



- HIS 303E International Relations 1870–1960, 2L**  
 The international relations of the European powers at their zenith and in decline. The economic and social framework – in Europe and the ‘outside’ world will be examined as well as the political conflict.  
*Pre-requisite: P.I.*
- HIS 304E Special Area – Latin America, 2L**  
*Pre-requisite: P.I.*
- HIS 305E Special Area – Modern Italy or Modern Germany, 2L**  
*Pre-requisite: P.I.*

### INTERDISCIPLINARY COURSES

- CMM 220ES Information Theory, 2L**  
 (I) Fundamentals of information theory. The effect of technological developments on communications past, present and future. Communications among the lower animals. Sociological implications of communications and mass media. (See also PHL 222S, PSY 375EF, soc 320s.)
- DRA 200E Drama Through Acting, 2L,3P**  
 (I) Practical work in acting and producing plays as a means of understanding and interpreting drama. Approximately four plays taken from different areas of drama. Lectures and seminars will also be held on the plays chosen and their background.  
*Pre-requisite: P.I.*
- JBC 220E Chemical Biology, 2L,3P**  
 The physical and chemical properties of biological molecules and the application of physical chemical principles to biological systems. Topics will include the structure of biological macromolecules and methods for the determination of structure, energy transfer mechanisms and the properties of enzymes including the kinetics of enzyme reactions.  
*Pre-requisite: BIO 100/120 and CHM 120*  
*Co-requisite: CHM 235EF recommended.*
- JLP 200EF Semantics and Linguistic Theory, 2L**  
 The structure and function of natural languages and the traditional division into semantics, syntactics and pragmatics. We focus on syntactics and especially Chomsky’s generative grammar and some of its philosophical implications. See also PHL 219s.

- JPZ 200E (I) **Population Regulation Mechanisms, 2L**  
Seminars covering the behavioural and genetic aspects of population regulation. Students present papers and lead discussions on selected topics. Emphasis will be on mammals and insects.
- UNI 100 **Myths and Models, 2L, 4T**  
Methods of thought and learning in the modern world and other places and times. Contemporary problems caused by rapid changes in the modern world require a re-appraisal of traditional methods of learning and understanding. To do this is to examine the myths and models that underlie existing knowledge and to compare them with those of other cultures and ages. This course which occupies 3/5 of a student's programme will investigate the methods of traditional disciplines and the relationships among them by providing the opportunity for concentrated study within a flexible structure that will enable the individual student to pursue interests in depth.  
NOTE: Open only to first year students.

### ITALIAN

- ITA 100 **Beginning Italian, 4L, 1P**  
Grammar, translation, oral work, with a view to providing basic conversational and writing skills.
- ITA 160EY **Italy – a Young Nation?, 1L**  
A nation in name only since 1861, is it really a nation in fact as well? What is the Italy of the twentieth century; of the 1960's? Where does Italy stand culturally, intellectually, artistically? These questions will be raised and examined by viewing a series of Italian films (Fellini, Visconti, Antonioni, Rossellini, etc.) and by reading selections in English from some of the more provocative contemporary authors.
- ITA 201E (I) **Continuing Italian, 2L**  
A comprehensive review of Italian grammar that will develop the student's power of expression through composition and translation of literary passages of interest. Italian will be used as much as possible in class.  
*Pre-requisite:* ITA 100/XIII ITA or P.I.
- ITA 202E (I) **Italian Short Stories, 2L**  
The short story ("novella"), so vitally important throughout Italian literature, should both interest and delight. Selections include "nouvelle"

by Boccaccio, some authors of the Renaissance, and Verga, Buzzati, Moravia, and others.

*Pre-requisite:* ITA 100.

**ITA 300E Italian Literature, 2L**

A survey of Italian Literature from its beginnings to approximately 1700. It serves as an introduction to the poetry and prose, and the types and styles of Italian literature. Dante, Petrarch, Boccaccio, Machiavelli are some of the authors to be discussed. Recommended as background preparation for all other Italian literature courses.

*Pre-requisite:* ITA 200E.

**ITA 301EY The Modern Italian Novel, 1L**

Svevo, the novelist from Trieste who was discovered by James Joyce, will be the first of a series of novelists to be studied. Others will include Pirandello, Silone, Vittorini and Moravia.

*Pre-requisite:* ITA 200E.

**ITA 302EY The Italian Theatre from the Futurists to the 1960's, 1L**

The germ of the present-day French theatre of the absurd is to be found in the earlier Teatro Grottesco with its dramatists such as Rosso di San Secondo and Chiarelli. Their influence on Pirandello is indisputable. Italian drama and comedy continue to surprise, depress or elate, with works by Betti, Fabbri and De Filippo.

*Pre-requisite:* Italian 200E; also open to students taking Italian 201E.

**ITA 303EY Italian Poetry in the 20th Century – Crisis and Rebirth, 1L**

The decadentism of Pascoli and D'Annunzio had left Italy, traditionally a land of poets, stagnating in its own tradition. The search to revitalize Italian poetry began with the urge to "tell it like it is". The result was an exciting rebirth which has continued to flourish, whether through the work of the better known Saba or Quasimodo or of the post-war poets like Sereni, or the still more recent neo-Marxists such as Fortini.

*Pre-requisite:* ITA 200E; also open to students taking ITA 201E.

**ITA 310E The Divina Commedia of Dante, 2L**

Dante's *Comedy* has been translated into many languages and many times into English. Its influence is well known and continues in the twentieth century through Ezra Pound and T. S. Elliott and even Le Roi Jones.

*Pre-requisite:* ITA 200E.

- ITA 311EF The Decameron of Boccaccio, 2L**  
 A concentrated study of Boccaccio's major work in its entirety, and his "novelle". He was, as well, a writer of literary theory, criticism and philosophy.  
*Pre-requisite:* ITA 200E.
- ITA 313E Petrarca e petrarchismo, 2L**  
 Why has Petrarch's poetic influence been felt by so many writers of so many countries (i.e. Ronsard in France, Garcilaso in Spain, Donne in England, Hooft in Holland, Bäriglio in Sweden, etc.)? We will seek to answer this question by a study of Petrarca in his prose as well as in his *Rime*, and of other Italian poets influenced by him: Poliziano, Lorenzo, Tansillo, Marino, etc.  
*Pre-requisite:* ITA 200E.
- ITA 321E The Italian Epic in the Sixteenth Century, 2L**  
 Ariosto's *Orlando furioso* and Tasso's *Gerusalemme liberata* influenced such famous writers as Cervantes, Spenser, Milton and Montaigne. The reasons will appear after a detailed study of the two works, each having similarities and differences in spirit and substance. Ariosto writes of women, knights, arms, loves and wild adventures, and Tasso declares his intent to treat of a spiritual cause but has difficulty restraining his sensual self. (Not offered in 1970-71.)  
*Pre-requisite:* ITA 200E.
- ITA 340EY Creative Italian, 1L**  
 Assumes you have mastered the basic rules and are ready to play the game. An advanced language course which goes beyond the mechanics of translation. A more subtle and flexible knowledge of Italian and of the means of self-expression are the purposes of this course.  
*Pre-requisite:* ITA 200E.
- ITA 370E What is Romanticism in Italy?, 2L**  
 This is a fundamental problem in Italian Studies, since the Romantic era is not as clearly defined as in French or in German literature and, in fact, is quite confusing. Thus, we will try to find an answer or answers by concentrating on Foscolo, Leopardi and Manzoni and by looking at minor figures, and historical background.  
*Pre-requisite:* ITA 200E.
- ITA 390ES Verga e la tristezza faticosa del vivere, 2L**  
 The novels and short stories of Giovanni Verga, Sicilian and Italian, whose characters endure the hopelessness of life.  
*Pre-requisite:* ITA 200E.



**ITA 399ES Pirandello: Life vs Form, 2L**

Although Pirandello died in 1936, the dramatization of his conception of life which aroused controversy when first presented is still disturbing. Much of today's theatre can be traced to Pirandello's influence.

*Pre-requisite:* ITA 200E.

**MATHEMATICS****MAT 110EF Introductory Calculus, 2L,2T**

Intended for students who did not take or did poorly in XIII MAT "A". Differentiation and integration of elementary functions with applications.

**MAT 120ES Finite Mathematics, 2L,2T**

Introduction to probability, linear programming, game theory, Markov chains.

*Pre-requisite:* XIII MAT A/110EF.

**MAT 135 Calculus and Linear Algebra I, 2L,2T**

Differential and integral calculus of algebraic and elementary transcendental functions.

Vectors in two and three dimensions with applications to geometrical problems, to the kinematics of a particle, and to the differential geometry of curves.

Introduction to real vector spaces and linear mappings including matrices and the solution of systems of linear equations.

Introduction to complex numbers.

*Pre-requisite:* XIII MAT A (75% or better).

**MAT 140E Abstract Mathematics, 2L,2T**

1. Introduction to the notions of topology. Convergence with particular emphasis on continuity and limits of functions of a real and complex variable. Sequences and series.

2. Introduction to the concepts of abstract algebra. Rudiments of logic.

*Pre-requisite:* XIII MAT A & B.

**MAT 224ES Set Theory, 2L,1T**

Naive set theory, paradoxes and their resolution through formalization and axiomatization. This is the same course as PHL 330S.

*Pre-requisite:* PHL 206F.

- MAT 235E Calculus and Linear Algebra II, 2L,1T**  
 Mean value theorem, convergence, vector spaces, orthogonality, vector calculus.  
*Pre-requisite:* MAT 135.
- MAT 244F Differential Equations, 2L,1T**  
 Ordinary differential equations of first and second order. Solution by series and integrals. Systems of first order, linear differential equations. Applications to physical problem.  
*Pre-requisite:* MAT 135.
- MAT 325 Geometry, 2L,1T**  
 Euclidean, inversive, projective, affine, non-Euclidean geometries and the relevant groups of transformations. The treatment is not restricted to real geometry. (Not to be offered in 1970–71.)  
*Pre-requisite:* MAT 140E.
- MAT 335E Analysis, 2L,1T**  
 More vector calculus together with complex variable, residue calculus, special functions, boundary value problems.  
*Pre-requisite:* MAT 235.
- MAT 345 Algebra, 2L,1T**  
 Groups, rings, modules, unique factorization domains, fields, finite fields, Wedderburn's theorem on semi-simple rings, the classical groups.  
*Pre-requisite:* MAT 140E.
- MAT 354Y General Topology, 2L,1T**  
 Sets and cardinals, Schroder-Barnstein, metric spaces, topological spaces, continuous maps, product quotient and subspaces, separation axioms, connectedness, compactness, Tychonoff, paracompact spaces, partitions of unity, mapping spaces (C-O topology), completion of metric spaces, normal linear spaces, duality.  
*Pre-requisite:* MAT 235.
- MAT 399Y Mathematical Essay**  
 The student will prepare under the supervision of an adviser an essay or a mathematical topic not covered in another mathematics course at Erindale. The work is to be at an advanced level, and, while no new results are expected, the development and presentation must be the student's own.  
*Pre-requisite:* Acceptance by an adviser.

- STA 232      **Introduction to Statistics, 2L,1T**  
 Elements of probability theory, common distributions, point and interval estimation, standard significance tests, introduction to least squares and analysis of variance.  
*Pre-requisite:* MAT 135/(110EF & 120ES)
- STA 332F      **Experimental Design, 2L,1T**  
 The statistical aspects of collecting and analyzing experimental data, analysis of variance, orthogonal designs.  
*Pre-requisite:* STA 232.
- STA 342S      **Regression Analysis, 2L,1T**  
 Regression theory with applications to the analysis of non-orthogonal data.  
*Pre-requisite:* STA 332F.
- PHL 206F      **Modern Symbolic Logic, 2L,1T**  
 (I) See PHL 206F for a description of this course.
- APM 246ES      **Applied Mathematics I, 2L,1T**  
 Vectorial mechanics of particles and rigid bodies. Problem in waves. Introduction to lagrangian dynamics.  
*Pre-requisite:* MAT 244F.
- APM 351E      **Applied Mathematics II, 2L,1T**  
*Pre-requisite:* APM 246ES.
- CSC 108Y      **Computer Programming, 1L,1T**  
 Algorithms and flow charts. An introduction to stored-program computers and Fortran programming. Elementary applications in data processing, scientific calculations, non-numerical problems, and simulations.  
*Pre-requisite:* P.I.
- CSC 248Y      **Programming Languages and Applications, 1L,1T**  
 The syntax and semantics of various programming languages, including both algebraic and symbol manipulation languages; data structures; numerical and non-numerical applications. See JLP 200EF.  
*Pre-requisite:* CSC 108Y.

## PHILOSOPHY

- PHL 100      **Introduction to Philosophy, 2L**  
 An introduction to a wide range of representative and important

philosophical problems and topics, including the following: whether moral standards are relative, whether human beings are free or determined; the nature and cogency of various arguments for the existence of God. Topics in semantics, formal logic and scientific method will also be discussed with a view to avoiding certain common errors in reasoning.

**PHL 204S Contemporary Social Issues, 2L**

Civil disobedience, conscientious objection and revolution, their nature and justification, are the main issues explored. The views of contemporary social critics and philosophers on these and related themes are analyzed and assessed in conjunction with the writings of Lenin, Thoreau, Gandhi, King, and Marcuse. (See PHL 224F.)

**PHL 205S Philosophy of Religion, 2L**

(I) What is the nature of religious belief and is it justifiable? In attempting to answer this and related questions we study primitive religion, three Eastern religions (Confucianism, Taoism, and Buddhism), the ontological argument for the existence of God, the Freudian critique of religion, and the relationship between science and religion. (See REL 230.)

**PHL 206F Modern Symbolic Logic, 2L**

(I) Symbolic logic provides precise and efficient techniques for analyzing and evaluating informal arguments in areas such as law, science and politics. Indispensable for the design of complex computer circuits. Designed to enable the student to acquire basic skills in manipulating symbolic logic formulas and to gain some knowledge of the powers and limitations of formal systems.

JLP 200EF—*See Interdisciplinary Courses.*

**PHL 208F Aesthetics, 2L**

What is a hoax? How does one distinguish between a *genuine* work of art and a sham or a hoax or a fraud? In dealing with these questions light is shed on traditional puzzles in a wide range of art forms and media. Students who wish to concentrate upon one particular art form such as literature or music are encouraged to do so.

**PHL 210S Philosophy in Literature, 2L**

Man's nature, his relation to his fellows and his place in the universe are all themes that have received significant literary and philosophical attention. Several major works of literature are examined with a view



to clarifying and evaluating the philosophical doctrines they reveal and reflect. The authors and works considered vary somewhat depending upon student interest but include at least some of Camus, Brecht, Golding, Sophocles, Dostoevskii, Tolstoy, Kafka.

- PHL 211F    Greek Philosophy I: Plato and his Predecessors, 2L**  
**(I)** Is morality merely an instrument in the hands of those who control the state? In answering this question Plato sketches the first account of a utopian society and deals with every important philosophical problem: the subjectivity of perception, the nature of knowledge, the relation between mind and body, the conventionalism or relativism of morality. Plato is the first major philosopher and his influence has been enormous.
- PHL 212S    Greek Philosophy II: Aristotle and Later Greek Philosophy, 2L**  
**(I)** Aristotle, like his teacher Plato, must be numbered among the great philosophers of all time. His work in science and philosophy determined the development of these subjects during the middle ages, and became an integral part of Western culture. We examine his main doctrines and trace their influence, and those of Plato, upon later thinking in the ancient world.
- PHL 213F    Early Modern Philosophy I: Seventeenth Century Thought, 2L**  
 The seventeenth century was the great formative era of modern philosophy, marked by the decline of mediaeval conceptions and the rise of modern science. Under the influence of the newly-emerging world-view, philosophers in this "age of reason" developed original analyses of knowledge and certainty, appearance and reality, freedom and necessity, mind and matter, deduction and experiment. Hobbes, Descartes, Spinoza and Locke are examined in some detail and others to a lesser extent. (See PHL 214.)
- PHL 214S    Early Modern Philosophy II: Eighteenth Century Thought, 2L**  
 The philosophers of this "age of enlightenment" developed further the insights of their predecessors. Berkeley is noted for his subtle and ingenious arguments whereby he establishes an immaterialist philosophy on empiricist principles. Hume is the major British philosopher and is renowned for his skeptical attacks upon established beliefs and doctrines. Kant, the major German philosopher, has been a most powerful influence dominating the thought of the nineteenth century. Other philosophers of the time are examined to a lesser extent.
- PHL 215F    Introduction to Existentialism and Phenomenology, 2L**  
 The writings of Sartre and Camus have helped make existentialism

the most widely discussed philosophy of the present day. Existentialism derives in part from the work of phenomenologists such as Husserl who first stressed the philosophical importance of detailed and accurate descriptions of mental states and processes. The technique of phenomenological analysis have been used by existentialists to provide a general description of the human condition – that relation between essence and existence which is peculiar to man. Both existentialism and phenomenology are analyzed and evaluated in this course. (See PHL 320s.)

**PHL 217S Introduction to the Theory of Knowledge, 2L**

Can we know anything for certain and, if so, what? Claims to know have been powerfully challenged by philosophic skeptics. We examine among other things the problem of skepticism, the scope and limits of human knowledge, the subjectivity of perception, rationality, and theories of truth. (See PSY 367EF.)

**PHL 219S Philosophy of Language, 2L**

Deals principally with philosophical problems of the meaning and use of linguistic expressions and theories of truth. The work of Chomsky, Wittgenstein, Tarski and others on these topics provides the basis for classroom discussion.

*Pre-requisite:* JLP 200EF recommended.

**PHL 220EF Philosophical Psychology, 2L**

Are some problems in psychology fundamentally conceptual in nature and not amenable to solution by means of the experimental method? Modern philosophical techniques of conceptual analysis are introduced and used to throw light on this question and others that arise where philosophy and psychology overlap. Problems about the emotions receive special attention.

**PHL 222S The Analysis of Propaganda, 2L**

A philosophical examination of various techniques of persuasion including psychological warfare, indoctrination, brainwashing, and advertising. Topics include the emotive use of language, persuasive definitions, informal fallacies, the ethical presuppositions of propaganda, and the relevance of contemporary analyses of morality to propaganda wars. The material examined includes black power literature, student protest literature, and Quebec separatist documents, as well as classical works such as the Communist *Manifesto* and Mill's *Utilitarianism*. (See CMM 200ES.)

**PHL 224F Introduction to Value Theory, 2L**

A philosophical examination of value concepts in the light of recent work in the social sciences, especially economics. What is the role of values in the explanation of behaviour, in deliberation and decision making? What is the dynamics of value-change? Are values relative? One major problem examined is that of formulating public policies on the basis of individual values and preferences.

**PHL 300s Philosophy of the Social Sciences, 2L**

Topics and issues include: patterns of explanation in the social sciences; objectivity and values; relations of social science with natural science and philosophy; methodological problems peculiar to social science; the roles of mathematics, models, and formal theories in social science; behaviourism in psychology and its conceptual underpinnings. (See PHL 224F & 204s.)

*Pre-requisite:* Two courses in the Social Sciences.

**PHL 301F Philosophy of History I, 2L**

The concepts, presuppositions, methods and types of arguments used by historians are analyzed and assessed. Among the questions examined are these: What is the role of general laws in historical explanation? Can history be objective? Is history determined? Do historical explanations differ from scientific explanations? Is history without value-judgments possible?

*Pre-requisite:* Two courses in History or Philosophy.

**PHL 302s Philosophy of History II, 2L**

A more thorough examination of topics studied in PHL 301F, together with new and related topics.

*Pre-requisite:* PHL 301F.

**PHL 303s Philosophy of Science, 2L**

The nature of scientific explanation, reduction of one theory to another, the relation between confirmability and falsifiability, conceptual change and scientific revolutions, philosophical problems of space and time, and the existence of theoretical entities.

*Pre-requisite:* One course in Science or Mathematics.

**PHL 316F Nineteenth Century Philosophy, 2L**

Traditional philosophical paths of reasoning and subject matter are abandoned in this most explosive and revolutionary period of thought. Philosophers like Hegel, Marx, Kierkegaard, Comte and Nietzsche bring in new concepts such as the effect of history on philosophy,

theories of dialectical materialism, existentialism, sociology, evolution and the influence of culture. Here began the trends which lead up to many of the philosophical dilemmas of our own day.

*Pre-requisite:* Three courses in Philosophy. (PHL 214s recommended.)  
(Not offered in 1970–71)

**PHL 317S      Twentieth Century Philosophy, 2L**

A survey of some main trends in contemporary philosophy. The course covers influential contributions to the fields of logical analysis, linguistics and science. Among the more important figures studied are Russell, Moore and Wittgenstein. Other recent philosophical systems are also considered.

*Pre-requisite:* Three courses in Philosophy.

**PHL 320S      Problems of Existentialism and Phenomenology, 2L**

A more thorough examination of themes studied in PHL 215, together with discussion of more recent developments in the application of the phenomenological method in such areas as the social sciences.

*Pre-requisite:* PHL 215F.

**PHL 330S      Set Theory, 2L**

The course covers naive set theory; an introduction to the paradoxes, and their resolution through axiomatization and formalization. This course is the same as MAT 224ES.

**PHL 331S      Minds and Machines, 2L**

Can machines think and feel? Are human beings simply very complicated bio-chemical devices, perhaps of a sort that future technology may be able to simulate? We deal with these questions in the light of recent research and discussion on the possibilities of simulation of intelligence and purposive behaviour.

*Pre-requisite:* PHL 206F/CSC 108Y.

**PHL 332F      Theory of Games, Decisions and Social Choice, 2L**

A formal and systematic treatment of conflicts of interest making use of the modern mathematical approach of game theory. Topics covered are utility theory, two-person zero sum games (games in which one person's gain is the other person's loss), non-co-operative and co-operative games, decision making under uncertainty, social welfare functions for group decision-making, games of survival and of fair division, and problems of majority rule.

*Pre-requisite:* One of PHL 206F, MAT 120SE/MAT 140E recommended.



- PHL 333s Problems in Conflict Resolution, 2L**  
 An investigation into the scope and limits of rational methods for resolving conflicts; The logic of violence, conflict and compromise; questions regarding the morality of war and nuclear strategies.  
*Pre-requisite:* PHL 224F/PHL 300s.

### PHYSICS

- PHY 110 Introductory Physics for Science Students, 2L,2P**  
 For specialists in physics, students majoring in biological science or Arts students wishing to do calculus and physics concurrently. The subject material includes elementary mechanics, properties of matter, electricity and magnetism, light, atomic physics, special relativity. Provides a survey of many fields of physics from the modern point of view.  
*Pre-requisite:* XIII PHY & XIII MAT A. Those without XIII PHY may take this course on P.I.  
*Co-requisite:* MAT 135 recommended.
- PHY 211E Thermal Physics, 2L,1T**  
 Thermodynamics and an introduction to statistical physics.  
*Pre-requisite:* Physics 230E.
- PHY 223E Electronics, 2L,2P**  
 An introduction to electronics and to modern applications of transistor and tube circuitry to various areas of scientific investigation.
- PHY 230E Advanced Electricity and Magnetism and Physical Optics, 3L,2P**  
 Mandatory for students wishing to specialize in physics. It may also be used as a Second Year terminal course for biology students, or students of the Humanities. A vector calculus treatment of electricity and magnetism, an introduction to wave theory and physical optics.  
*Pre-requisite:* Physics 110.  
*Co-requisite:* MAT 235E.
- PHY 310 Quantum Physics, 2L**  
 An introduction to quantum mechanics with selected applications in atomic and nuclear physics.  
*Pre-requisite:* Physics 230E.  
*Co-requisite:* APM 246 ES.
- PHY 311 Mathematical Physics, 2L**  
 A discussion of generalized mechanics, rigid body motion and

Lagranges equations; selected topics in mathematical physics such as heat flow, vibrations, diffusion, etc.

*Pre-requisite:* Physics 230E.

*Co-requisite:* APM 246 ES.

- PHY 312      Introduction to Electromagnetic Theory, 2L**  
 Discusses Maxwells equations, electromagnetic waves and their applications in optics, radiation theory and the elements of wave guide theory.  
*Pre-requisite:* Physics 230E.  
*Co-requisite:* APM 246 ES.
- PHY 313      Advanced Physics Laboratory, 3P**  
 Selected experiments in optics, atomic and nuclear physics, etc.  
*Pre-requisite:* Physics 230E.  
*Co-requisite:* Physics 310.

#### **POLITICAL SCIENCE**

- POL 100      Introduction to Canadian Politics, 2L,1T**  
 The political process in Canada, including Canadian political culture, the formation of public opinion, political behaviour, political parties, the constitution, federalism, French Canada, federal-provincial financial relations, and the structure and functioning of political institutions, such as the cabinet, parliament, the judiciary, and the public service.
- POL 101      Introduction to Political Science, 2L**  
 An examination of political practices, concepts, and institutions as they have developed in the western world.
- POL 200      Political Theory, 2L**  
 The development of political thought from the dialogues of Plato to the controversies surrounding the French revolution. Among the theorists examined are Aristotle, Machiavelli, Hobbes, Locke and Rousseau.
- POL 203      Politics and Government of the United States, 2L**  
 The first term concentrates on the evolution of the American constitution with particular reference to individual rights, federalism and governmental powers. The second term deals with the actual operation of government through the workings of politics and administration; it covers executive-legislative relations, parties, pressure groups, the bureaucracy, and foreign affairs.

- POL 204      Politics and Government of the U.S.S.R., 2L**  
 An introduction to the domestic politics and foreign relations of the U.S.S.R., with emphasis on the post-Stalin era. The initial phase will be taken up with the political history, political culture, and institutions of the U.S.S.R., and with a consideration of alternate approaches to the study of Soviet politics. Detailed attention will then be given to the Soviet policy process in both domestic and external affairs. Although the stress will be on internal politics, roughly a quarter of the course will be devoted to external affairs and the impact of external events and foreign policy considerations on the Soviet domestic scene will be emphasized throughout.
- POL 205F      Politics and Government of the United Kingdom, 2L**
- POL 304E      British Politics, 2L**  
 A study of the institutions and processes of the British system.
- POL 306      International Relations, 2L**  
 A study of politics among states in the international system stressing the sources of power and the attempts to resolve conflict.
- POL 328      International Organization and International Law, 2L**  
 International organization and international law as instruments for conflict resolution in the system of international states.
- POL 329S      Marxism & Leninism, 2L**
- POL 400F      Twentieth Century Political Thought, 2L**
- POL 408      Science & Government, 2L**
- POL 414S      Politics of Communist East Europe, 2L**  
 An area study course with particular emphasis on problems of regional integration and the influence of ideology and the Soviet Union.
- POL 430E      Workshop in Political Science, 2L**  
 A seminar for specialists in political science, with an orientation and structure dependent on the interests of available students and faculty.  
*Pre-requisite:* POL 100 or 101.

## PSYCHOLOGY

Psychology 100 is a full year course strongly advised as a pre-requisite for all other Psychology courses. Instructors in all subsequent courses

will assume the student has the background knowledge provided by this course.

**PSY 100      Introductory Psychology, 3L**

Surveys various areas of contemporary psychology, its methods, problems and current status.

**PSY 200F     Statistics and Research Design I, 3L**

Basic descriptive and inferential statistics. Topics will include frequency distributions, measures of central tendency and variability, correlation, elementary probability and simple statistical inference. Knowledge of high school algebra is assumed.

**JPZ 200E —** *See Interdisciplinary Courses.*

**PSY 201S     Statistics and Research Design II, 3L**

Concerned with the design of experiments and methods of statistical analysis. Topics will include chi-square, the analysis of variance, and regression analysis. Knowledge of basic statistics is assumed.

**PSY 203F     Social Psychology, 3L**

A survey of contemporary areas of research in social psychology. Areas to be considered include social perception, attitudes, interpersonal relations, group processes, and ethnic attitudes.

**PSY 204S     Personality, 3L**

Examination of theory and research related to personality development with emphasis on research in the self concept, need for achievement, anxiety, authoritarianism, etc.

**PSY 205F     Differential Psychology, 3L**

Genetic and environmental bases of individual differences in intelligence and personality, including consideration of developmental variables, family, sex, class and race differences.

**PSY 208F     Sensory and Perceptual Processes, 3L**

Examination of theoretical and experimental efforts aimed at understanding sensory and perceptual function. Emphasis will be placed on vision research at both the physiological and behavioural levels. (Not to be offered 1970–71.)



- PSY 209s Biological Foundations of Behavior, 3L**  
The relationship of neural and biochemical information to the study of behaviour. The biological events underlying behavioural phenomena will be explored.
- PSY 210s Individual Research**  
May be taken by students wishing to pursue *either* a laboratory research project *or* a specifically designed program of readings. Either choice will be conducted under the supervision of a staff member, whose approval will be required prior to enrollment. A course of this nature is designed for students desiring either research experience or a more detailed exploration of a specific topic of psychological interest. May be taken for either a half course or full course credit.  
*Pre-requisite: P.I.*
- PSY 211s Motivation, 3L**  
Theory and research devoted to the variables underlying the energizing and direction of behaviour. Both physiological and psychological motivation will be explored. (Not to be offered in 1970–71.)
- PSY 212EF Animal Learning, 3L**  
Phenomena of classical and instrumental conditioning in mammals, particularly the white rat. The phenomena of acquisition, generalisation, discrimination, and partial reinforcement will be examined from both an empirical and a theoretical point of view. (Not to be given in 1970–71.)
- PSY 213EF Comparative Psychology, 3L**  
Innate and learned behavioural capacities of a variety of animals from simple one-celled organisms to man. Emphasis will be placed on understanding both the similarities and the differences in modes of behavioral adaptation at different phylogenetic levels.
- PSY 214s Human Learning and Memory, 3L**  
Facts, theories, and methods in the study of human learning. Major emphasis will be on recent trends in the study of verbal learning, memory and verbal behaviour. (Not to be offered in 1970–71.)
- PSY 215EF Developmental Psychology, 3L**  
The examination and analysis of the development of organisms. Both animal and man will be studied with reference to genetics, maturation and early experience.

- PSY 216ES Experimental Design and Theory, 3L**  
The logical structure of psychological theories; problems involved in the design of experiments; the interpretation of experimental findings. Practice in the critical evaluation of experimental designs and the correction of experimental errors.
- PSY 326ES Abnormal Psychology, 3L**  
A survey of theories and research in psychopathology and psychotherapy with special emphasis on social learning theory and behaviour modification techniques.  
*Pre-requisite:* P.I.
- PSY 351ES Laboratory in Human Learning, 1L,2P**  
Experiments in human learning and memory will be discussed and performed. Conditioning, verbal learning, memory, concept learning, perceptual-motor skill learning, and problem solving.  
*Pre-requisite:* 200F & 201S are recommended.
- PSY 352EF Laboratory in Animal Learning, 1L,2P**  
Supervised demonstration experiments designed to familiarise students with the methods of collecting, analysing, and reporting data in psychological experiments *employing animal subjects* for the study of learning.
- PSY 353ES Laboratory in Sensory and Perceptual Processes, 1L,2P**  
The fundamentals of sensory and perceptual processes, chiefly visual. Students conduct weekly laboratory experiments, using each other as subjects. (Same as PSY 208S (1969–70).) Fulfills laboratory requirement for specialists.
- PSY 362ES Animal Behaviour and Ethology, 3L**  
The examination and analysis of animal behaviour. Special emphasis on the study of the social interactions of animals in groups particularly as it relates to the animals' adaption to their environment.
- PSY 364ES Topics in Social Psychology, 3L**  
Areas to be considered include communication, cognitive-physiological view of emotion, sociopathy, and theories of attitude change. Enrollment limited.  
*Pre-requisite:* P.I.
- PSY 367EF Cognitive Processes, 3L**  
A broad survey of the psychology of thinking. Problem solving,

concept formation, reasoning, psycholinguistics, computer simulation of thought and problems in the organization of behaviour and thought. (See PHL 217F.)

**PSY 369EF Child and Adolescent Psychology**

Examination of the relations between socialization and the myriad characteristics of adolescence, including cognitive processes, values, and interpersonal behaviour.

**PSY 370EF Theory of Psychological Testing, 3L**

The principles of psychological testing viewed in relation to existing tests. Technical topics include elementary measurement theory, reliability, and validity. Tests studied include intelligence tests, interest inventories, and personality scales.

**PSY 375EF Psychology and Communication, 3L**

Designed to explore critical relationships between psychological variables and the news media, politics, theatre, films, television, etc. Student research reports will become the focus of topical discussions. (Confrontation and open warfare of a non-violent nature will be accepted, if not actually encouraged.) Limited enrollment. (See CMM 200ES.)

*Pre-requisite: P.I.*

### RELIGIOUS STUDIES

**REL 200 Religious Traditions, East and West, 1L,2T**

(I) The ideas, attitudes, and practices of the Judaic, Christian, Muslim, Hindu, Buddhist, Confucian, Taoist, and Shinto faiths. (See ANT 209E.)

**REL 230EF The Roles of Religion, 2L,1T**

(I) The positive and negative roles which religion has played and continues to play in human maturation and in the evolution of the universe. A general analysis of personhood authentic human living self-transcendence. The phenomenon of faith; religion as wonder; religion as meaning; and religion as health. (See PHL 205S.)

**REL 250ES Teilhard de Chardin: His Impact on Modern Man, 2L,1T**

(I) This course will examine the thought and spirit of Teilhard de Chardin as a Christian interpretation of the evolutionary theory. Creation, evil, sin, love, work, cosmic spirituality are pivotal issues, as well as Teilhard's relevance for 20th century man.

### SLAVIC LANGUAGES AND LITERATURES

- SLA 100     **Introductory Russian Language, 4T,1P**  
Fundamentals of Russian Grammar. Practice in aural comprehension, speaking, reading, and writing. Language laboratory practice.
- SLA 110E     **Introduction to Slavic Culture and Literature, 1L,1T**  
The historical development of Slavic culture, languages, and literatures from the beginning to the present. Readings (in translation) selected from all periods of Russian, Ukrainian, Polish, and other Slavic Literatures.
- SLA 210  
(I)     **Nineteenth Century Russian Literature, 2L,1T**  
Major literary currents in nineteenth century Russia; extensive readings (in translation) of the works of Pushkin, Gogol, Turgenev, Dostoevsky, Tolstoy, and others. Will be required to do a certain amount of reading in the original. SLA 100, SLA 220 required for specialists.
- SLA 220  
(I)     **Intermediate Russian Language, 3T,1P**  
Continued study of Russian with language laboratory practice, oral practice, composition, and conversation based on reading of literary texts and topics of current interest.  
*Pre-requisite:* SLA 100.

### SOCIOLOGY

(See also PHL 300s.)

Instructors in all 200-series or higher courses will assume that the student has the background knowledge provided by Sociology 104.

- SOC 101     **Introductory Sociology: Study of Society, 2L,1T**  
An introduction to the basic concepts, principles, and methods of sociology as a discipline for the study of society.
- SOC 201     **Methods of Social Research, 2L,1P**  
Sociological Enquiry, Theory and Practice. An introduction to the logic of research procedures, methods of collection, presentation and analysis of sociological data, including an elementary consideration of the methods of quantitative research.
- SOC 202     **Structure of Interpersonal Relations, 3L**  
Patterned relationships, social roles and social expectations which arise out of interaction among individuals.



- soc 205      Urban Sociology, 3L**  
Examines the city both as a significant development in world civilization and a working mechanism guided by contemporary policies and studies human behaviour in its multifaceted relations with the urban environment.
- soc 208E    Sociology of Deviance, 3L**  
A sociological analysis of deviant behaviour which examines theories of its genesis, social definition, maintenance, control, and social consequences.
- soc 212      Sociology of the Family, 2L,1T**  
Development of the contemporary Western family with special emphasis on the changing relations among its members.
- soc 303      Canadian Society, 3L**  
An analysis of the changing structure of Canadian society.
- soc 304F    Industrial Sociology, 3L**  
An examination of the impact of industrialization on social roles and institutions with special emphasis on problems arising from increasing automation and affluence.
- soc 310F    Race and Ethnic Relations, 3L**  
Social processes involved in minority relations in terms of race and ethnicity and their social, economic, and political consequences.
- soc 312s    Population and Society, 3L**  
An analysis of mortality, fertility, migration, and their relation to population, social structure, mobility, and social change.
- soc 313      Sociological Theory, 3L**  
The development of sociology and contributions of particular sociologists whose concepts not only have historical interest but also illumine the subject matter and method of contemporary sociology.
- soc 320s    Mass Communications in Canadian Society, 3L**  
The development and impact of mass media on the society and culture of Canada with a focus on radio, film, and television. (See CMM 200ES.)
- soc 324F    Political Sociology, 3L**  
The social basis of politics. Culture and social organization in their relation to power and its application.

SOC 326ES **Sociology as Strategy for Social Change, 2L,1P**  
The utilization of the sociological imagination in achieving desired social change by active participation in groups committed to social change.

SOC 390EY **Individual Studies, 3 hours/wk**  
Intensive research of a problem of special interest under the supervision of a member of the staff.  
*Pre-requisite:* At least two Sociology courses and P.I.

### SPANISH

SPA 100 **Beginning Spanish, 3L,2P**  
For those who have had no previous background in Spanish. By the end of the year, students should have acquired sufficient knowledge of the written and spoken language to be able to specialize in Spanish. Emphasis will be placed throughout on the oral side of the work both in class and in the language laboratory.

SPA 140E **Spanish Civilization and Culture, 2L**  
(In English.) Presents an overall view of the activities of the Spanish people from the early settlers of the peninsula to the current scene. Using the history of the country as a basic frame, the course will deal with the main currents of thought and the major accomplishments in literature, art, architecture and music. Visual presentations will frequently be used.

SPA 160E **Spanish American Civilization and Culture, 2L**  
(In English.) Designed to give an understanding not only of the unique civilization of Latin America, but also of its serious social and economic problems. Deals with all of the major countries in Central America, the Caribbean and South America.

SPA 200 (I) **Conversation and Linguistic Study of Spanish, 3L**  
Stresses idiomatic speech. Classes will include general conversation, short talks and reports on subjects of topical interest. One hour a week will be devoted to the study of Spanish phonetics and the major linguistic features of the language, both modern and historical.  
*Pre-requisite:* SPA 100E/XIII SPA.

SPA 220 **Panorama of Spanish Literature, 2L**  
From works of several periods and in a variety of styles, students will discover the mastery with which representative Spanish writers have

used the language to describe Spanish life and values. In the *second term* conducted almost entirely in Spanish.

*Pre-requisite:* SPA 100E/XIII SPA.

**SPA 221 Intermediate Grammar and Composition, 2L,1P**

Reinforces and refines the students' knowledge of Spanish to allow a greater range of expression and a broader understanding of the language.

*Pre-requisite:* SPA 100E/XIII SPA.

**SPA 320 Creative Spanish, 2L**

Conducted mainly in Spanish and designed to meet the needs of those who already have a good knowledge of Spanish. Methods used improve the students' style and ability to write and speak Spanish. Will include essay and letter writing, translation, conversation practice and oral reports.

*Pre-requisite:* SPA 120E.

**SPA 343E Literature of the Golden Age, 2L**

The gradual modification of Italian Renaissance influences through the undercurrent of persisting national traditions. Original texts – poetry, drama and novel – will be studied as reflecting one of Spain's most interesting and richest periods, comprising the 16th and 17th centuries. The course will be given mainly in Spanish.

*Pre-requisite:* One or more SPA 200-series courses.

**SPA 340 History of Spain, 2L**

Conducted in English. Designed for students interested in Spanish History from the time of the Romans to the present day. The invasions of the Visigoths and Moslems, the formation and collapse of the medieval kingdoms, the Habsburg and Bourbon dynasties, the Civil War, and the regime of General Franco. (See HIS 202E.)

**SPA 376E Spanish American Literature, 2L**

Designed to study literary works from the 16th century chronicles to modern writings. In the last decades, Pablo Neruda, Alfonso Reyes, Jorge Luis Borges, Miguel Angel Asturias, Vargas Llosa, Julio Cortazar are only a few of the many Spanish American writers universally read.

*Pre-requisite:* One or more SPA 200 series courses or equivalent.

**SPA 446E Contemporary Spanish Literature, 2L**

A survey of the evolution of the novel, drama and poetry, showing the

successive changes in form and content. The first half deals with the nineteenth century: the Romantic revolt against Neo Classicism and the development of Realism and Naturalism. The second half concentrates on the twentieth century: it will study the literary movement of the "Generation of 98", the upsurge of Modernism, focusing on the interaction between the two, and finally leading up to present day tendencies of social concern.

*Pre-requisite:* One or more SPA 200 series courses or equivalent.

SPA 420

**Composition**

Escribir y Traducir, an advanced stylistic and composition course.

*Pre-requisite:* SPA 320.



## Index

- |        |                            |        |                                |
|--------|----------------------------|--------|--------------------------------|
| 2      | Academic Calendar          | 55     | Interdisciplinary Courses      |
| 17     | Academic Standing          | 27, 56 | Italian                        |
| 3      | Administrative Staff       |        |                                |
| 10     | Admission Requirements     | 23, 41 | Latin                          |
| 21, 33 | Anthropology               | 27, 59 | Mathematics                    |
| 27, 61 | Applied Mathematics        |        |                                |
| 21, 34 | Astronomy                  | 28, 61 | Philosophy                     |
| 9      | Athletics (E.C.A.R.A.)     | 9      | Physical Education             |
| 21, 35 | Biology                    | 28, 67 | Physics                        |
| 22     | Botany                     | 29, 68 | Political Science              |
|        |                            | 29, 69 | Psychology                     |
| 22, 38 | Chemistry                  |        |                                |
| 23, 41 | Classical Studies          | 11     | Registration                   |
| 27, 61 | Computer Science           | 29, 73 | Religious Studies              |
|        |                            | 30, 74 | Russian                        |
| 23, 42 | Earth & Planetary Sciences |        |                                |
| 23, 43 | Economics                  | 13     | Scholarships & Awards          |
| 24, 45 | English                    | 30, 74 | Slavic Languages & Literatures |
|        |                            | 2      | Schedule of Dates              |
| 4      | Faculty                    | 30, 74 | Sociology                      |
| 12     | Fees                       | 16     | Specialization                 |
| 25, 47 | French                     | 31, 76 | Spanish                        |
|        |                            | 3      | Staff                          |
| 25, 50 | Geography                  | 27, 61 | Statistics                     |
| 23     | Geology                    | 8      | Students' Administrative       |
| 23     | Geophysics                 |        | Government (S.A.G.E.)          |
| 26, 53 | German                     | 20     | Subject Abbreviations          |
| 23, 41 | Greek                      |        |                                |
| 23, 42 | Greek & Latin Literature   | 16     | Time Tables                    |
|        | in Translation             | 8      | Transportation                 |
| 23, 42 | Greek & Roman History      |        |                                |
|        |                            | 31     | University 100                 |
| 3, 9   | Health Service             |        |                                |
| 26, 54 | History                    | 22     | Zoology                        |
| 8      | Housing                    |        |                                |





